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RANGAVALLI
RECENT RESEARCHES IN INDOLOGY
Sri S.R. Rao Felicitation Volume

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Recent Researches in Indology

SRI S.R. RAO FELICITATION VOLUME

Editors
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PREFACE

Rangavalli is an ancient art famous for variety, colourfulness, religious quality and uniqueness of its own. In encompasses all aspects of culture and life of man. Likewise, the life and achievements of Dr. S. Ranganatha Rao, popularly known as Dr. S.R. Rao is not only colourful and varied but also unique in the field of Indian History and Culture. His fresh approach to the Indus script is too well known and has been recognised all over the world by such competent scholars as Sir Motimer Wheeler, David Diringer and others. Equally significant is his identification of the extension of the Harappan Civilization into Gujarat through a number of sites like Rangapur and Lothal and the identification of the oldest dockyard in the world at Lothal. Of course, in Indian archaeology, he has been characterised as a dynamic person for his explorations and excavations. When Dr. Rao retired after his official career in the government, many friends and admirers felt that a volume of research articles should be presented to Dr. Rao in appreciation of his services to the cause of Indology. Dr. A.V. Narasimha Murthy and Dr. B.K. Gururaja Rao were asked to be the Chairman and Secretary of the Felicitation Committee and Dr. Lallanji Gopal (Varanasi), Dr. Upendra Thakur (Bodh Gaya), Dr. K.D. Bajpai (Sagar), Dr. A.M. Shastri (Nagpur), Dr. K.V. Raman (Madras), Dr. R.K. Sharma (Hyderabad) and Dr. S.H. Ritti (Dharwar) kindly agreed to be on the Committee to guide its activities. And the result is the present Volume which contains useful and scholarly articles on various aspects of Indology, covering Pre and Protohistory, Early History, Epigraphy, Numismatics, Art history, Philosophy and Literature.

At the outset we are grateful to the members of the Felicitation Committee who have guided us in our venture. We are equally grateful to the learned contributors who have made this Volume scholarly and useful by their research papers. Dr. K.V. Ramesh has taken great interest in the production of this Volume besides going through many articles, for which we thank him profusely.

Our thanks are due to Sri Swadesh Prasad Singhal of Messrs. Sundeep Prakashan, New Delhi for taking up the publication of this Volume and for having brought out the same in an attractive manner within a short period. We hope that this Volume will be warmly welcomed by all interested in Indological studies.

Mysore,
6.9.1982.

Dr. A.V. Narasimha Murthy
Dr. B.K. Gururaja Rao
EDITORS

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1

THE RELEVANCE OF EXPERIMENTAL APPROACH IN INDIAN PREHISTORY

K. PADDAYYA*

Although the investigations undertaken during the last three or four decades have contributed in a significant way to our understanding of the geographical distribution of the Stone Age cultures in India, it must at the same time be confessed that our knowledge of the cultures themselves is still in a nebulous state. If one may be allowed to identify the chief factors responsible for this unfortunate situation, it must first be noted that so far only a vertical or stratigraphical approach has been adopted in the Stone Age studies. Here the emphasis has been placed on the construction of regional culture-sequences based on alluvial stratigraphy. So it is not infrequently that these studies turned into attempts at geologizing the respective areas. Since the stone artefacts derived from alluvial gravels and silts constituted the sole category of cultural material, the study of cultures has more or less been regarded as synonymous with techno-typological analysis and inter-regional comparisons. Indeed, borrowing a metaphor used by the late Sir Mortimer Sheeler for describing the then known state of protohistoric research in the country, we may say that we have only time-tables of cultures, but alas, the trains are not yet in sight. In other words, the Stone Age cultures as we know them today are no more than phantoms; they clearly need to be filled with flesh and blood. Only then can we claim to have realized the aims of prehistoric research, *viz.*, the understanding and explanation of past human behavioural patterns.

The oft-cited factors alleged to be inhibiting our attempts at realizing these goals are that : (1) we do not have sites like the Olduvai George; (2) our sites are lacking in plant and animal remains; and (3) the cultural material itself is limited to stone artefacts. But these are at best half-truths. It is wrong to think that we are lacking in primary sites of the kind represented by the Olduvai George (though not of the same order); it is only that, on account of our well-known bias towards 'gravel-and-silt' prehistory and 'touch-and-go' type of field studies, we have not bothered to identify such sites. In this connection it is gratifying to note that

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intensive studies undertaken in recent years have brought to light clusters of primary sites in several parts of the country; these have yielded valuable data for reconstructing the Stone Age land-use patterns and related aspects.[1] Even as regards the organic materials, it would be self-defeating to take their non-availability for granted; it is necessary to plan work in areas where environmental conditions are better for the preservation of such materials.

Apart from the reorientation of methods of field investigation, a time has also come when we have to devise other approaches for supplementing the meagre information provided by the archaeological sites. It is in this connection that the ethnographic and experimental approaches assume great importance.[2] The ethonographic approach provides parallels or analogies derived from the study of contemporary primitive societies (tribal and peasant). The experimental approach, on the other hand, is concerned with conducting artificially devised tests or experiments. The results obtained through these two approaches are used for understanding cultural phenomena as well as various natural and human processes shaping the formation of archaeological record. But it is important to realize that these approaches do not supply ready-made solutions to the problems facing the archaeologist; they merely provide models or a range of alternatives, one or more of which may offer clues for explaining an archaeological phenomenon. As has been summed up well by Tringham.[3]"...(these approaches) play an integral part in hypothesis testing and in the formulation of probability statements in archaeological studies."

In Eruope and America the experimental approach has had a long history covering over one and a half centuries.[4] One of the most common themes of the early experiments was the replication and use of stone tools.[5] The present century has witnessed a widening of the scope of this approach; the new experiments relate to various aspects of the past cultures such as the preparation and use of various forms of artefacts of stone, bone, and other materials, methods of food preparation and storage, methods of transportation, agricultural practices, and housebuilding and destruction.[6] The experiments of Bordes and Crabtree concering the preparation and use of stone and bone tools.[7] Semenov's[8] (see also Hayden 1979 *a* and *b*; Keeley 1980) famous microscopic studies of wear-marks on ancient tools, the Danish experiments involving the use of published stone axes for forest clearance as well as those relating to the construction of replicas of Iron Age houses, Jewell and Dimbleby's[9] (1968) famous Overton Down (England) earthworks experiments, and the Dutch agricultural experiments in the unprotected salt marshes facing the North Sea[10] are some of the well-known examples.

Ascher[11] and Coles[12] have set down the basic procedural rules that should be followed in archaeological experiments, if they have to achieve a general level of acceptability and reliability. The three chief conditions laid down by Coles are ; (*a*) that the results should be capable of being repeated ; (*b*) that the materials used in experiments should have been locally available to the prehistoric society under consideration; and (*c*) that knowledge of modern technology should not be allowed to influence the experiments. Influenced by the elaborate rules governing research in the natural sciences, Tringham[13] has recently called for improvements in the design, execution and interpretation of experiments. Her two main please are : (*a*) the need for greater explicitness in the formulation of the hypothesis that is to be tested by the experiments, and (*b*) awareness of and need for objective measurements in the recording and interpretation of results. Adopting Karl Popper's famous principle of falsification, she says that a hypothesis gets confirmed not by positive inference from a single test but subjecting itself to a series of tests until all but one fail to refute the hypothesis. Citing the case of Semenov's microwear studies, she argues that it is not enough to show that a particular activity caused a particular wear pattern on the edge of a tool, but it is necessary to establish that this wear pattern could not have been produced by any other activity. As for the importance of quantifying the results of archaeological experiments, she draws attention to the fine experiment conducted by Sarayder and Shimada[14] for ascertaining the relative efficiency of steel and stone axes for felling trees. Here the efficiency is measured not only in terms of speed and amount of wood-cutting but also as difference in the oxygen output during human energy expenditure.

Tringham's comments about what she calls the 'leapfrogging' tendency in archaeological experimentation are also worth remembering. In these investigations attention has so far been directed mainly towards upper-level problems; lower-level hypothesis such as the testing of mechanical properties of stone, bone, clay and other materials have been neglected. Citing, as an example, Binford's famous but controversial hypothesis of functional variability is the Mousterian assemblages, she laments that Binford did not refer at all to the results of microwear studies in his discussion of functions of different classes of artefacts.

As has been pointed out by the writer elsewhere,[15] experimental archaeology is yet to emerge as an organised research endeavour in India. It is no doubt true that some experiments have been undertaken in connection with the manufacture and use of stone tools,[16] but these are of an elementary type and have not been successful in inspiring systematic attempts. It is emphasized here that this approach has immense scope in Indian archaeology and as such needs to be pursued in an earnest manner. The three major aspects of the study of past which could benefit from this approach are as follows :

(*a*) The role of various natural and human agencies contributing towards the preservation of archaeological data.[17]
(*b*) Various aspects of the human cultural system itself—manufacture and use of artefact categories, construction of shelters, food procurement and preparation, etc.
(*c*) Palaeoecological data.

The present study records the results of a few experiments which the writer himself has conducted. It must at once be conceded that these too are of a preliminary type; the purpose of recording them here will have been amply served if they can highlight the potentialities of the experimental approach in the Stone Age studies in India.

1. *Blunting and Direction of its Execution*

Notwithstanding its sporadic use in the preceding Middle Palaeolithic cultures, blunting (also called backing) form of secondary working emerges as one of the leading features of the stone-tool technology of the Upper Palaeolithic phase. Like edge retouch (also called trimming) backing is a process of shaping a blank—be it a blade or a flake—subsequent to its removal from the core. It involves the working of margins in a steep manner so that the original sharpness gives place to steep-sided appearance and the raw blank ultimately gets transformed into a definite tool form. Though both are margin-working processes, blunting and simple retouch differ from each other in two ways. First, retouch is executed in a slanting or oblique fashion and this involves minimum encroachment upon the width of the blank. As opposed to this, blunting necessarily results in the loss of a considerable portion of the width because it involves the working of margins in a steep way. Cases are not infrequent where half or even more of the width has been sliced away in the course of blunting. The second differenee concerns the functional aspect. Simple retouch is meant for strengthening or regularizing the form of a margin and as such adds to its efficiency as a working edge. A blunted margin, on the other hand, loses its sharpness and is therefore ineffective for cutting, slicing, scraping and such other operations. Hence the inference that this working was meant to be a protective measure—in the hand-use of flints as well as in fitting them into wooden or bone hafts to form such artefacts as sickles/knives, arrows, spearheads, harpoons, etc.

Movius[18] have already dealt with the attributes of this stone-working technique, such as the extent of encroachment upon the width of the blank, the resultant cross-section of the blank and the commencement of working at one or both ends. Backed blades and bladelets, Chatelperronian points, Gravettian and micro-Gravettian points, Cottes points, shouldered points and Azilian points are some of the more important Upper Palaeolithic types shaped by means of this method. We may further note that it survives into the succeeding Mesolithic and Neolithic periods; here it was employed for manufacturing microlithic forms like trapezes, traingle, lunates, etc. Coming to the techonological aspects, backing consists of the removal, from the margin, of more or less vertical chippings or flakelets by applying pressure with a pointed piece of wood, bone or stone.[19] Theoretically speaking, the chipping can be removed in any one of the following three ways. First, they may be detached by applying pressure from the ventral, or bulbar, surface; this may be called *ventral* blunting. Secondly, they can be effected from the dorsal, or upper, surface, to which we may give the label *dorsal* blunting. The third possibility is that they may be removed from both the surfaces, *i.e.*, part of the thickness removed from dorsal surface and the rest from ventral surface. This procedure may be called *bi-directional* blunting.

These three theoretical alternatives notwithstanding, the writer was struck by an interesting feature while making a first-hand study of the backed tools belonging to the Hamburgian, *Federmesser* and Ahrensburgian cultures, as preserved in some of the Dutch and German museums. (These three cultures make up the Upper Palaeolithic phase in northwestern Europe.) The blunting occurring on these artefacts was generally found to be executed from the ventral surface. Owing to insufficient information and the lack of statistical details, it is not possible to be equally certain about the backed tool collections from other parts of Europe as well as those from Africa and Western Asia. However, a study of the examples illustrated in the publications shows that in these areas also, ventral backing is the most common form of working.[1] A perusal of the literature on the Upper Palaeolithic and Mesolithic industries of India has made known that the backed tools of this region also were obtained by means of ventral backing. We can therefore regard ventral backing as a universal attribute of the backed tools, spatially as well as temporally. Dorsal and bi-directional blunting, though not altogether absent, seem to confined to a limited number of artifacts.

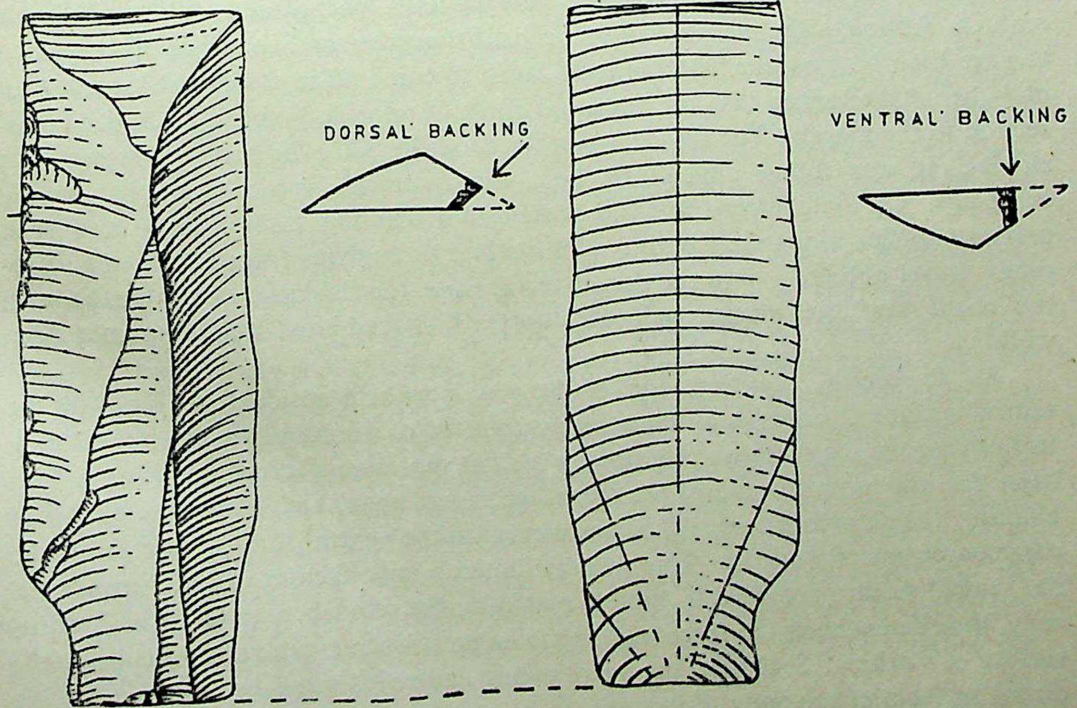

Fig. 1. Dorsal and ventral forms of backing.

With a view to understanding this phenomenon the writer carried out certain experiments which will be described below. At the outset it is important to have a clear idea of the morphology of blanks selected for blunting. The ventral surface of any artificially produced blank (flake or blande), is smooth without any irregularities, irrespective of whether it is flat or somewhat concave. As opposed to this, the dorsal surface has a bulging make-up, as formed by the irregularities (cortex. remants of previous flaking or both) of the surface of the nucleus or parent block; in cross-section it may be triangular, trapezoidal or (rarely) sector-like (Figure 1). It is precisely this bulging make-up which forms the thickness of the blank, and all kinds of secondary working slice through this make-up.

The writer's experiments were conducted in 1970 at the Biologisch-Archaeologisch Institute of University of Groningen (Holland). The blanks used were blades belonging to the *Federmesser* culture; the retoucher was a fist-sized nodule of flint having a pointed end. The method adopted for the application of force was one of pressure; the blade was laid on a table and held firmly with one of the hands. Then the retoucher, clasped in the other hand, was made to push off a series of chippings by pressing its pointed end against the margin of the blade. In this way both ventral and dorsal forms of blunting were experimented.

First, working from the dorsal surface. Here the platform was formed by the sloping region along the margin. The experiment was continued till a fairly large portion of the width (sometimes even touching the line where the thickness is at its maximum) was chipped away and the working itself reached a stage beyond simple retouch. Although the margin lost its original sharpenss and consequently appeared to have been blunted, the working itself failed to come off in a steep fashion; it can only be characterized as an advanced form of retouch, giving a V-shaped cross-section to the margin. The reason is not far to seek. Since the platform region was sloping, it was found difficult to hold the retoucher vertically and remove the chippings. On the contrary, it could be held in a slanting fashion only and then pressure applied along the margin. This method of applying force made the chippings travel obliquely into the dorsal surface (*i.e.* the thickness of the blank), with the result that the margin achieved only a V-shaped cross-section and not steep working.

As to ventral blunting, the blade was now held upside down (*i.e.* with the ventral surface upwards) and the margin subjected to working in a similar fashion. In this case the platform was formed by the flat ventral surface; it provided a firm basis for the pointed end of the retoucher to rest upon. Unlike the case of dorsal blunting, the chippings came off perpendicular to the ventral surface right from the commencement of working. This was facilitated by two factors. First, because the flat ventral surface provided a suitable platform, the retoucher could be held vertically, thereby enabling the force resulting from pressure to travel perpendicular to the surface of working. Secondly, the overhanging nature (as resulting from the sloping dorsal surface) of the body of material to be worked through enabled the chippings to travel right across, thereby producing the desired effects of steepness of the margin.

It would thus seem that the margins of a blank can be blunted in a much easier way and with much more perfect results by directing the working from ventral surface. This can be attributed to : (*a*) the availability of a suitable platform as formed by the flat ventral surface and (*b*) the overhanging character of the material to be sliced through. Both these advantages are absent in the case of dorsal blunting and hence the slanting nature of working. To sum up, the difference between the two procedures is one of working from a suitable platform and hence cutting right *across* the thickness of the blank as against working from a sloping platform and cutting *obliquely* into the thickness.

2. *Effects of Fluvial Processes on Open-air Sites*

It is not infrequently that one comes across the Stone Age sites in India, because they are located in the open air, are completely at the mercy of fluvial processes and as such there is little or no scope for their preservation in primary context. While this view may hold good in the case of some of the sites lying close to the courses of major rivers, it seems to have little relevance in respect of sites located in interior areas where the drainage is in the form of seasonal streams. The writer was faced with this problem while studying the Acheulian sites of one such area called the Hunsgi valley in North Karnataka. Detailed surveys led to the identification of numerous primary sites in the form of discrete artefactual clusters. Excavations at some of the localities revealed occupation levels. Geomorphological and sedimentological studies showed that these sites were unaffected by stream flow and such other major fluvial processes. Surface run-off is the only possible agency which could have to some extent altered the original configuration of these sites. With a view to ascertaining the nature and extent of disturbance, if any, caused by this agency, the writer made repeated observations at the following two test spots.

One of these spots is a slightly sloping barren ground (on the Deccan College Campus, Poona) over which stone fragments of the Deccan Trap measuring up to 20 cm. across (Plate I) are strewn. Repeated observations extending over three monsoon seasons have failed to reveal any significant displacement in the positions of stone fragments. Whatever little movement that has been observed in the positions of some of the pieces is within the limits of the spot. This inference holds good equally well in respect of stone fragments and other features making two huts and bathing spot used by two worker-families which had encamped on the Deccan College Campus in 1978-79 in connection with the building of the compound wall (Plates II, III, IV). The writer believes that the presence of grass-cover and the shallow nature of the surface runoff (which is never more than a few centimetres even on the days of heavy rainfall) are the two main factors which inhibited the movement of stone pieces.[20]

Another plot is the chessboard like stone-yard (counterpart of pottery-yard at protohistoric excavations) laid by the writer in February 1976 in the course of his excavation at one of the Acheulian occupation localities near Hunsgi. These squares, with their outlines defined by rock fragments measuring upto 20 cm. across, were meant for facilitating the grid-wise arrangment and field study of artefactual material from the excavation. They were left undisturbed at the close of the excavation. The writer revisited the spot several times thereafter (the last one being in June 1979) for recording the positions of stone fragments. Although the grid-like arrangement of stone pieces was badly disturbed in some cases, very few fragments were found outside the limits of the spot. Secondly, the pieces that suffered displacement showed a tendency towards clustering. Thirdly, some of the squares were partly covered with a layer of silt.

From the above observations it seems reasonable to infer that, unlike stream flow, surface run off is not a major factor affecting the preservation of open-air Stone Age sites. The shallow nature of the flow and the presence of vegetation cover in the form of grasses and scrup growths seem to contribute to the preservation of artefactual concentrations. Once these are buried under a soil cover of reasonable thickness, they are relatively safe from the effects of erosional processes operating on surface and thus could be preserved for any length of time. In fact, this seems to be the reason for the occurrence of several primary Acheulian sites in the Hunsgi valley and elsewhere. At the same time it cannot be denied that surface runoff can cause considerable within-the-spot displacement of stone pieces. Such an observation has to be kept in mind while studying the distribution of artefacts on an occupation level.

3. *Use of Stone Tools*

With a view to knowing the efficacy of stone tools for butchering purposes, the writer undertook an experiment at Husngi in February 1976 in which stone tools were used for butchering a two-year-old calf. This experiment has revealed that any lightduty tool with a sharp edge (flake, knife or scraper) would be effective in skinning, slicing meat and such other light operations, heavy tools like chopping tools, handaxes or cleavers are essential for certain operations while butchering a large mammal, *e.g.* breaking open the sternum and backbone, the separation of ribs from vertebral, and breaking up long bones and vertebrae. So it is not surprising that large artefacts like chopping tools are also found at many Mesolithic and Neolithic sites.

In another experiment a limestone cleaver was hafted to a wooden handle and used for felling an *Acacia* tree with its trunk measuring about 10 cms. in diameter. It has been possible to cut the tree within a period of 15 minutes. Such experiments were also conducted by other workers in India. But it now appears necessary to go beyond this elementary stage and make attempts to identify the actual contexts in daily life in which stone tools were used for such operations. For attempting such studies it is necessary to have a good understanding of the various kinds of activities arising in connection with basic human needs (food and raw material procurement, lay-out of camps, construction of shelters) as well as the ecological background.

As to the experiments for obtaining data on palaeoenvironments, the writer has elsewhere suggested that it would be interesting to fence of a few hectares of land in different rainfall zones and observe what changes occur after a lapse of 5 or 10 years.[21] There is a distinct possibility that the plot will develop a thick cover of vegetation; changes in vegetation may usher in other ecological changes, particularly the animal life. One such instance is provided by the afforestation scheme launched at the Ranibennur blackbuck sanctuary (Dharwar District, Karnataka) and the resultant spurt in the wildlife population.[22]

In conclusion, it is perhaps well to reemphasize that the study presented here is of a preliminary type primarily intended for drawing the attention of archaeologists in the country to the wealth of data which may be expected by pursuing this particular approach. Incidentally, the discussion also serves to correct certain misconception about the methodology of archaeological research. It is not uncommon to hear that social sciences including history and archaeology offer little scope for the formulation of reliable laws, since these disciplines, it is alleged, are observational in nature and have but a very narrow range of possibilities for controlled experiments.

After a thorough examination of the issue, Nagel[23] concludes that controlled experimentation, although it has led to tremendous progress in optics, chemistry and other branches, cannot be regarded as the *sine qua non* for achieving factual knowledge. He points out that sciences like astronomy, astrophysics and geology have achieved theoretical development, although they lack the scope for controlled experimentation. These as well as the social sciences employ what he calls the method of controlled investigation, which serves the same logical purpose in inquiry as controlled experimentation. He lists three forms of controlled inquiry into social phenomena : (*a*) laboratory experiments; (*b*) field experiments; and (*c*) investigations seeking to unravel the casual factors leading to an event, set of events, or complex of traits. So far as archaeology is concerned, the first two forms of inquiry are covered by the experimental approach; while the latter is an aspect of the ethnographic approach. The writer has knowledge of only two exceptions important enough to be mentioned here. Backed tools, comprising points and blades, worked bi-directionally occur in small numbers in the assemblages of the Dabban culture of Cyrenaican Libya.[24] Examples backed from the dorsal surface occur in the assemblages of the Eastern Oranian, Capsian and Neolithic cultures of the same region account for 5 to 30 per cent of the backed tool group.[25] The second case is that of the Gravettian points of the Upper Perigordian (Gravettian) and Magdalenian assemblages of France.[26] The majority of these artifacts are obtained by ventral blunting. But some of the specimens show bi-directional working, though it should be pointed out that the dorsal working, often of a flat type, is generally confined to the terminal portions of the artifacts and hence seems to have been employed for finalizing the tool form.

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2

METRICAL ANALYSIS OF ACHEULIAN TOOLS FROM PALERU VALLEY, COASTAL ANDHRA PRADESH

V.V. Madhusudhana Rao*

The Paleru valley lies between 15°15′ and 15°30′ N latitude and 79°15′ and 80°5′ E longitude and is located in the Prakasam District. Kleindienst[1] has pointed out that a large composite Acheulian collection (random sample) should include 40-60 per cent of small implements and varying percentages of other components. The occurrence of handaxes, cleavers and knives forming 65 per cent of the shaped tools as the principal types in the Paleru valley, clearly establishes the Acheulian character of the assemblage from the valley. In recent years Issac[2] recognized two culture—stratigraphic subdivisions of African Acheulian. "The tools of Lower Acheulian Industries are characterized by simpler workmanship and minimal bold retouch indicative of stone hammer technique. Upper Acheulian industries commonly include refined tool forms with large numbers of the shallow invasive trimming scars, typical of cylinder hammer technique. The number of trimming scars and the ratio of thickness to breadth promise to be useful quantitative discriminants between the two sub-divisions".

In India, unlike in Africa, ware still lacking precise and reliable stratigraphic evidence for distinguishing the sub-cultural phases of Acheulian. In the absence of the stratigraphical evidence for distinguishing the stages of Acheulian in India, the author made an attempt to resolve this problem by resorting to metrical analysis on handaxes. The author has carried the experiment on 172 handaxes from the Paleru valley and 88 handaxes from Chirki-on-pravara. Size and refinement indexes has clearly brought out the features of Indian Upper and Lower Acheulian industries.

Size

The frequency distribution of weight and length measurements will help us to have an idea of the size. The longer or heavier an implement is, the greater is its

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size. Roe[3] has ruled out its cultural and chronological significance in British Lower Palaeolithic industries. But size seems to have some cultural and chronological

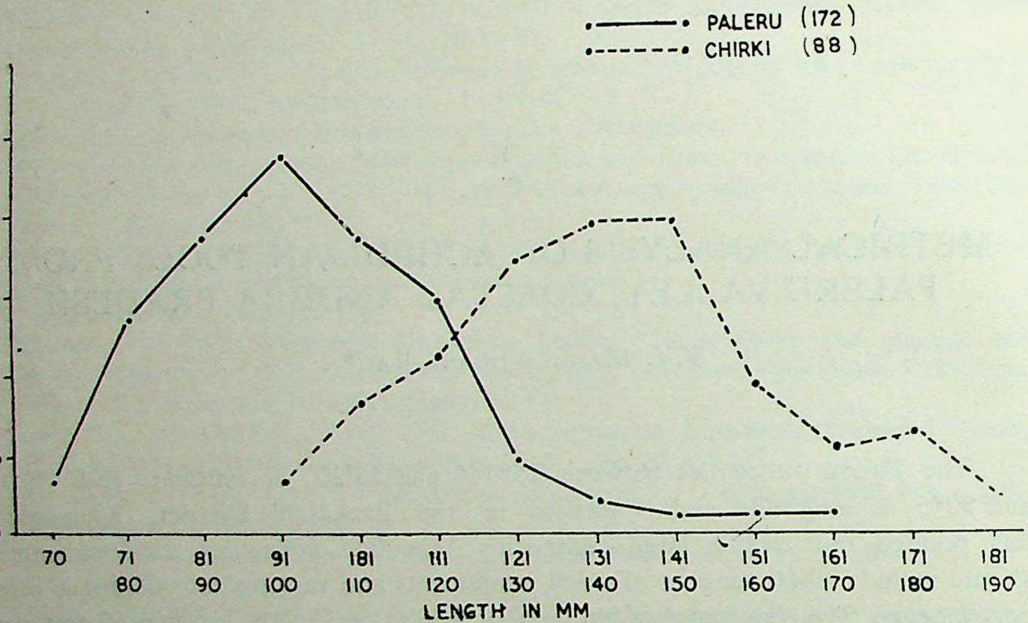

Fig. 2. Length frequency diagram for handaxes (size).

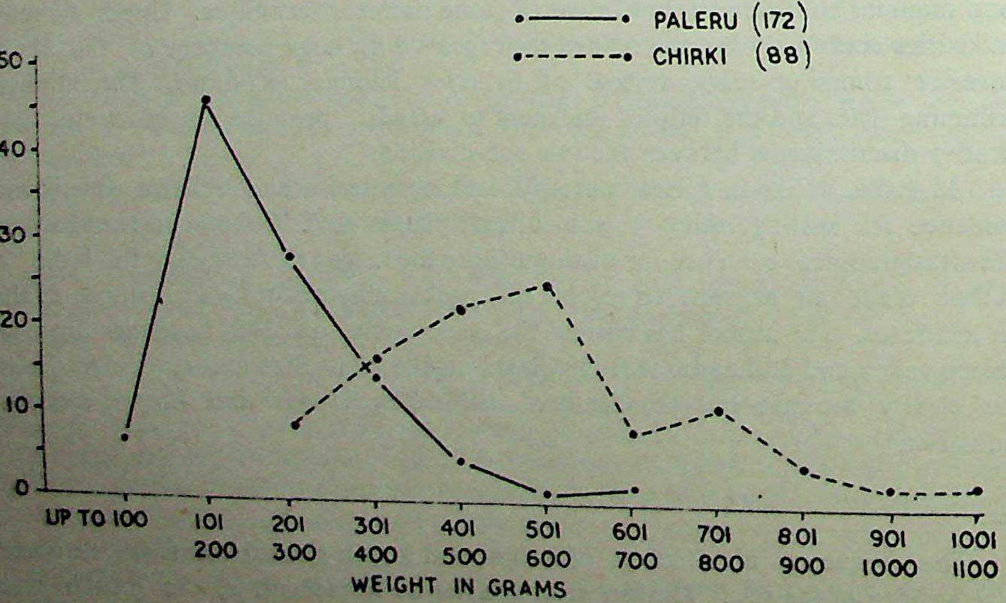

Fig. 3. Weight frequency diagram for handaxes (size).

significance in Indian context. The writer's experiments with Paleru and Chirki industries show that the mean length and weight diminishes with time. David Gilead[4] also carried out metrical analysis of handaxe industries in Israel and the Near East. His experiments also revealed that the mean length of the handaxes diminishes with time, although he admitted that he could not claim that the descending order follows exactly the chronological sequence of the handaxe industries. The larger and heavier tools generally occur in early indurtries and the smaller and lighter tools appear in the later industries. The size freqency results from Paleru and Chirki are presented in Fig. Nos. 2 and 3 and Table Nos. 1 and 2. The experiments revealed that the tools from Paleru are smaller and lighter in comparison with the Acheulian industry at Chirki.

TABLE 1

Dimensions of Handaxes of Lower Palaeolithic Culture

(a) Length

Class (mm)	*No. P**	*Percentage*	*No. C**	*Percentage*
61-70	6	3.48	—	—
71-80	23	13.37	—	—
81-90	32	18.60	—	—
91-100	40	23.25	3	3.41
101-110	31	18.02	7	7.95
111-120	25	14.53	10	11.36
121-130	8	4.65	15	17.04
131-140	4	2.32	17	19.32
141-150	1	0.58	17	19.32
151-160	1	0.58	8	9.09
161-170	1	0.58	4	4.54
171-180	—	—	5	5.68
181-190	—	—	2	2.27
	172	99.96	88	99.98

P*—Paleru C*—Chirki

Table 2

Dimensions of Handaxes of Lower Palaeolithic Culture

(b) Weight

Class (*mm*)	*No.* *P**	*Percentage*	*No.* *C**	*Percentage*
Upto 100	11	6.39	—	—
101-200	78	45.35	—	—
201-300	48	27.91	7	7.95
301-400	24	13.95	14	15.90
401-500	8	4.65	20	22.73
501-600	1	0.58	22	25.00
601-700	2	1.16	7	7.95
701-800	—	—	10	11.36
801-900	—	—	4	4.54
901-1000	—	—	2	2.27
1001-1100	—	—	2	2.27
	172	99.90	88	99.99

P*—Paleru C*—Chirki

Refinement

The frequency distribution of the ratio of thickness/breadth (T/B) and the number of trimming scars on handaxes will give us an idea of the refinement. A high value of T/B usually indicates unrefined forms while the low values T/B show refined forms. The T/B values of the Paleru industry in comparison with Chirki presented in Fig. No. 4 and Table No. 3 suggests that the tools from Chirki are unrefined while those from Paleru are refined. The handaxes from Chirki gave a mean value of T/B as 0.66 while the mean value of T/B for handaxes from Paleru is 0.44.

Similarly a high number of trimming scars usually indicates refined forms while low number of scars show unrefined forms. The frequency distribution of the number of trimming scars presented in Fig. No. 5 and Table No. 4 suggests that the tools from Chirki are unrefined while those from Paleru are refined. The Handaxes from Paleru has shown 20 trimming scars on average in comparison to 9 from Chirki. Thus the Indian Acheulian industries can be divided into Lower and Upper Acheulian by taking into consideration the size and refinement indexes.

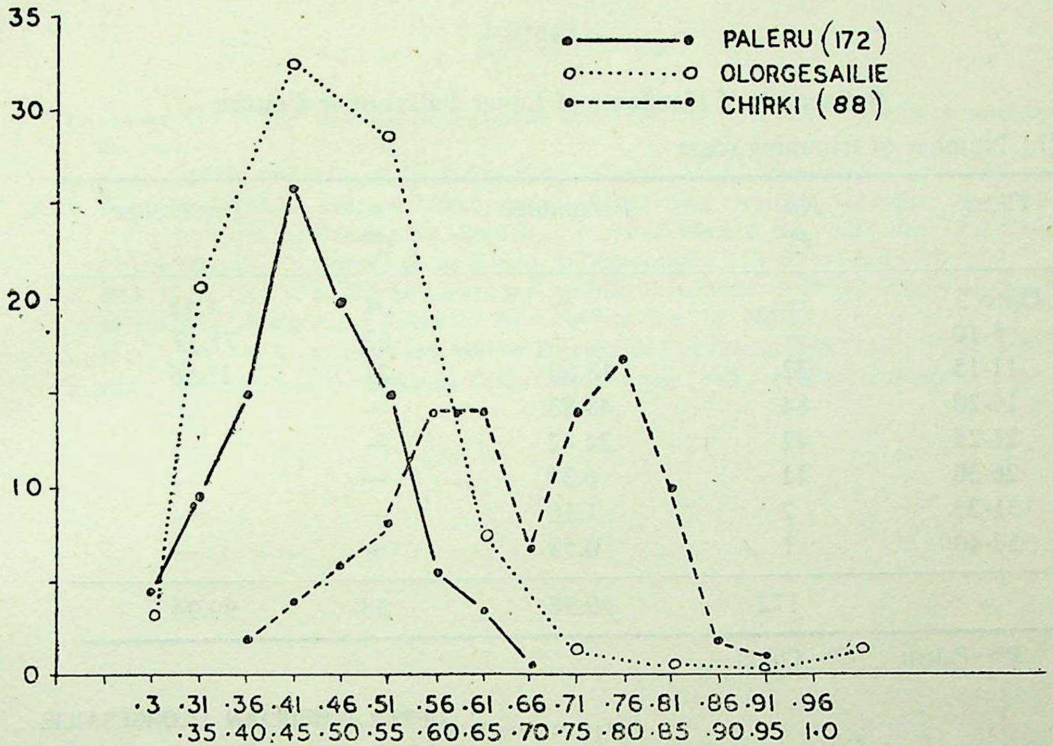

Fig. 4. Thickness/Breadth Index for Handaxes (Refinement),

TABLE 3

Refinement of Handaxes of Lower Palaeolithic Culture

(c) Thickness/breadth rato

Class	*No.* *P**	*Percentage*	*No.* *C**	*Percentage*
Upto-.30	8	4.65	—	—
.31-.35	16	9.30	—	—
.36-.40	28	16.28	2	2.27
.41-.45	46	26.74	3	3.41
.46-.50	33	19.19	5	5.68
.51-.55	27	15.69	7	7.95
.56-.60	7	4.07	13	14.77
.61-.65	6	3.49	13	14.77
.66-.70	1	0.58	6	6.82
.71-.75	—	—	12	13.64
.76-.80	—	—	15	17.04
.81-.85	—	—	9	10.22
.86-.90	—	—	2	2.27
.91-.95	—	—	1	1.14
	172	99.99	88	99.98

P*—Paleru C*—Chirki

TABLE 4

Refinement of Handaxes of Lower Palaeolithic Culture

(b) Number of trimming scars

Class	*No.* *P**	*Percentage*	*No.* *C**	*Percentage*
Upto 5	—	—	4	4.45
6-10	—	—	63	71.59
11-15	32	18.60	21	23.86
16-20	84	48.83	—	—
21-25	42	24.42	—	—
26-30	11	6.39	—	—
31-35	2	1.16	—	—
36-40	1	0.58	—	—
	172	99.98	88	99.94

P*—Paleru C*—Chirki

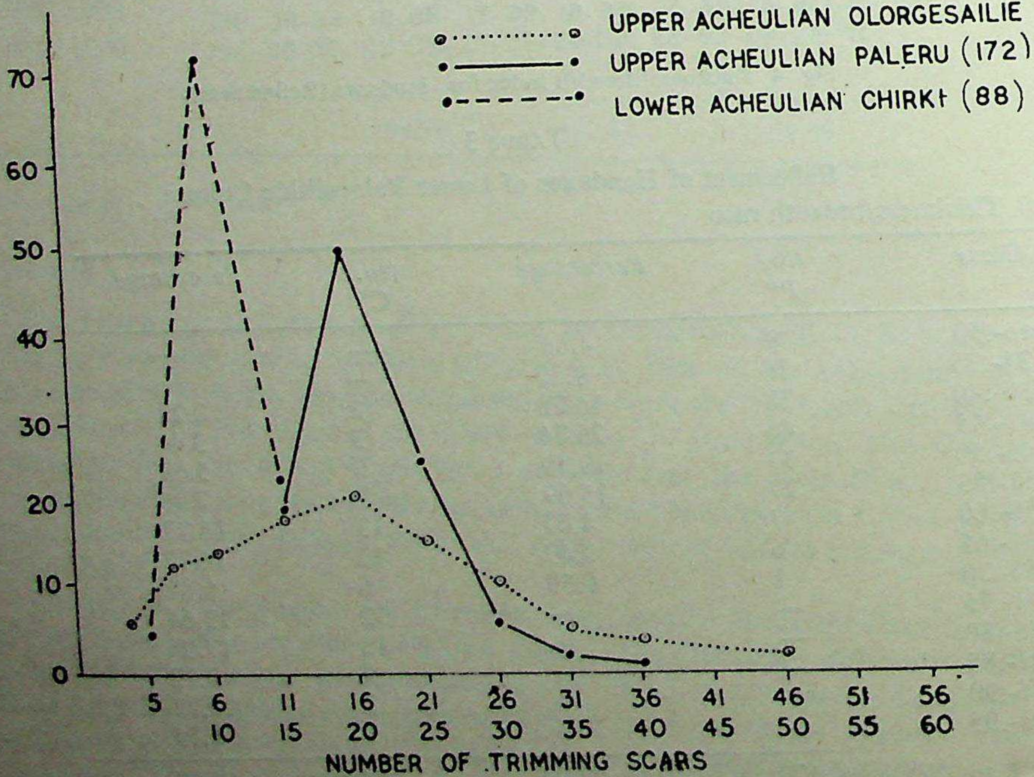

Fig. 5. Number of Trimming Scars (Handaxes).

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3

MARATIPALEM AND CHINTALAPALEM : TWO LATE ACHEULIAN SITES IN SOUTH-EASTERN ANDHRA PRADESH

V. Rami Reddy and S. Bhaskar*

Introduction

The Indian Palaeolithic period as known todate is characterised by Lower, Middle and Upper Palaeolithic Cultures comparable to their counterparts in Africa and Europe. The Lower Palaeolithic period belonging to the gravel of the first aggradation phase is identified by core tool assemblages unlike the flake tool traditions of the Middle Palaeolithic period. It differs from the latter in raw material, typo-technology and size of the tools. Pebble tools, hand-axes and cleavers have been found almost in all parts of the country mostly in association with each other. In the handaxe tradition there are two subdivisions namely Abbevillian and Acheulian, the latter industry characterising most of the Indian sites. In peninsular India the Acheulian handaxes and cleavers normally occur in finer gravel with the silt overlying at their junction. Similar evidence was found around Yerpedu area in Southeastern Andhra Pradesh where a collection of 153 tools of the Acheulian tradition has been made from two sites namely Chintalapalem (81) and Maratipalem (72). Both the sites situated in Kalahasti Taluk of Chittoor District are new discoveries, which form the subject of the present paper.

Chittoor District in the southern tip of Andhra Pradesh was archaeologically *terra-incognita* till the sixties of this century when Murthy[1] undertook the work for his doctoral problem resulting in the discovery of artifactual evidence belonging to Lower, Upper Palaeolithic and Mesolithic Periods at many localities on the river Rallakalava a little to the northeast of Renigunta in the eastern part of the district. Since then no work has been done in other parts of the district as has been shown by the published literature on the subject although in the neighbouring districts of Guntur[2] and Prakasam[3], Nollore[4], Anantapur[5], Nalgonda[6] and

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Cuddapah[7] large quantities of artifactual and non-artifactual evidences of Early man right from the Paleolithic to the Iron age times have been gathered from several sites by surface explorations besides uncovering many findings from excavations at sites like Utnur,[8] Palavoy and Nagarjunakonda. These works and the archaeogical blankness of the other parts of the district itself aroused interest in us culminating in a careful and systematic explorotions of the area beyond Yerpedu along the eastern foot of the Velikonda hills which is replete with tools and implements of Early Man right from the Lower Palaeolithic to the Mesolithic times.

The Sites and their Physiography

Chintalapalem and Maratipalem, the hamlets of the Pallam village are situated on 13° 49′ north latitude and 79° 35′ east longitude about 12 km. to the northwest of Yerpedu, an important place in Kalahasti Taluk of Chittoor District which forms part of the south-east coast. Pallam is about 40 km. north of Tirupati town on the way to Venkatagiri of Nellore District (Fig. 6). To the south,

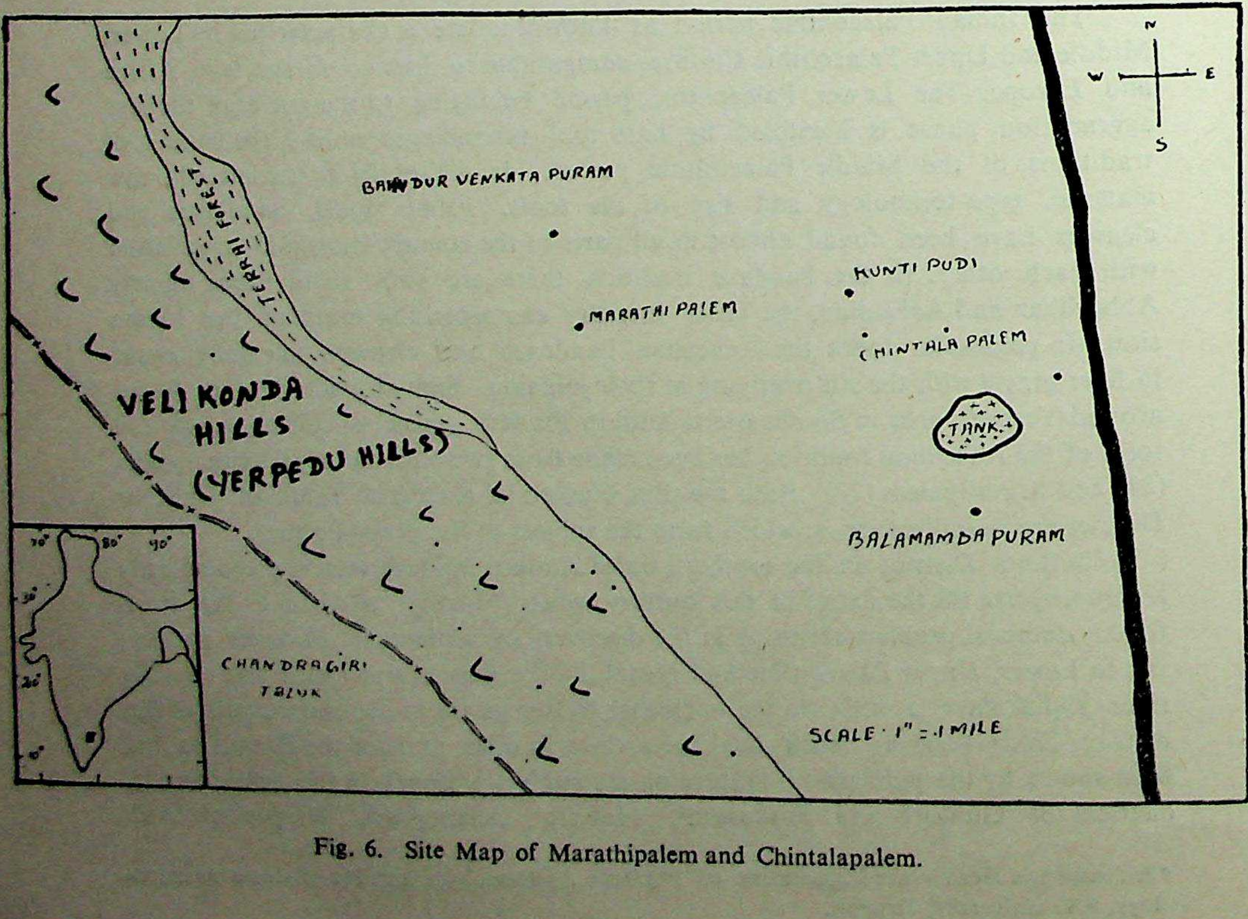
N
W
E
S
BAHADUR VENKATA PURAM
TERRAI FOREST
KUNTI PUDI
MARATHI PALEM
CHINTALA PALEM
VELI KONDA HILLS (YERPEDU HILLS)
TANK
BALAMAMDA PURAM
70°
80°
90°
30°
20°
10°
CHANDRAGIRI TALUK
SCALE · 1" = 1 MILE

Fig. 6. Site Map of Marathipalem and Chintalapalem.

south-west and south-east of Pallam, and north, north-west and north-east of the above hamlets and on either side of the eastern foot of Velikonda hills, locally known as Yerpedu hills, a sample of 153 tools of various type belonging to the Acheulian phase of the Lower Palaeolithic period was collected in January, 1977. Both the sites are of open-air type covering an area of about 50 acres of land most of which is uncultivated. Eighty one (52.94 percent) specimens came from Chintalapalem while the rest 72 (47.06 percent) belong to the site of Maratipalem. The evidence is confirmed by typo-technological features and stratigraphical context. For the latter a 40 cm. implementiferous copper-red weathered fine loose gravel (layer 3) at a depth of 15 to 20 cm. from surface in an exposed section near the Chintalapalem tank has been found. From this horizon a lanceolate handaxe of the Acheulian type was picked up. The gravel certainly belongs to the later part of the first aggradational phase witnessed in many parts of the peninsular India (Fig. 7).

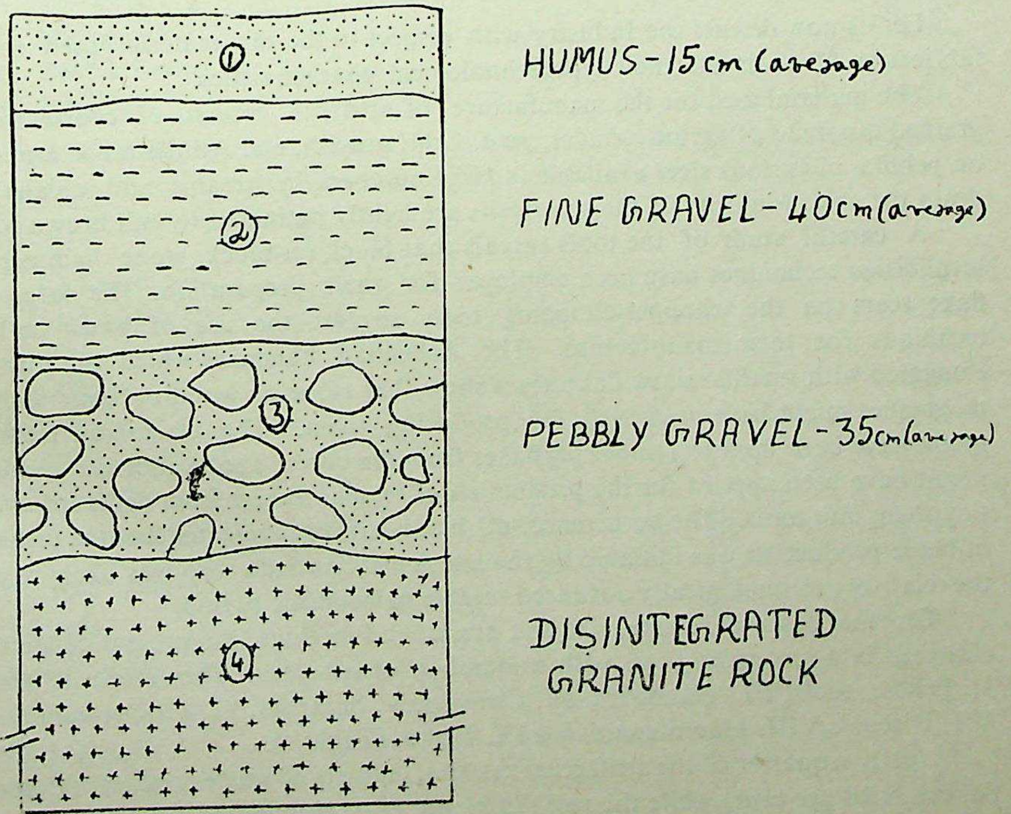
①
②
③
④
HUMUS-15 cm (average)
FINE GRAVEL-40cm (average)
PEBBLY GRAVEL-35cm (average)
DISINTEGRATED GRANITE ROCK

Fig. 7. Section of Chintalapalem site.

The sites are bounded by the Velikonda hill ranges on the west, Bahudur Venkatapuram and Kuntipudi villages on the north, Balamambapuram on the

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south and the Yespedu-Venkatagiri bus road on the east. The terrain is shrubby consisting of varieties of flora and fauna. The hill ranges characterised by thick forests have been the points of origin for several streams discharging their water into the Chintalapalem tank. Geologically the vicinity of the sites is rich in the 1500 million year old quartzites and the 2000 million year old granites of the Purāṇa and Archaean eras. The Eparchaean unconformity of 500 million years is prominently present as in other parts of the world. Besides, trap dykes cutting through the Archaeans are also seen. The other Pleistocene formations are recent alluvial deposits and soils. The annual rainfall in the area is extremely low as both the northwest and southeast monsoons fail to benefit this tract of the country. Our observations of the present day flora and fauna as well as water resources at and around the sites suggest that in the remote past the environmental conditions were to a large extent congenial for the survival and perpetuation of human technology and culture.

The Industry

Let us now discuss the Industry with respect to the raw material used for the fabrication of tools and their typotechnological characteristics.

The material used for the manufacture of artifacts consists of coarse to fine-grained quartzite of various shades; pale, light, greyish, etc. All the tools are made on pebbles of various sizes available in large numbers in streams and nalahs that drain the area. Majority of the specimens are lightly patinated to dull brown colour.

A careful study of the tools reveals that block-on-block, stone hammer and levalloisian techniques have been employed for their preparation. The large deep flake scars on the chopper-chopping tools suggest the use of block-on-block technique for their manufacture. The Acheulian handaxes which are thin and elongated with small shallow flake scars show that stone or wood or bone hammer techniques might have been used for producing them. The clactonian technique might have been used to remove big flakes from the cores. The levalloisian technique might have been applied for the production of regular flakers from cores for converting them into tools. The occurrence of blade-scrapers indicates that the technique of blade production was initiated by the late Acheulian man who was likely to enter the relatively technologically advanced middle palaeolithic period.

On the basis of shape, size and presumed functions, the present collection is classified into nine main types with a number of subtypes. They are : I. Cores, II. Pebble tools, III. Handaxes, IV. Cleavers, V. Scrapers, VI. Scraper-cum-borers, VII. Discoids, VIII. Macrolunate and IX. Flakes (Table 1).

Nearly a quarter of the artifactual material consists of waste products : Cores and flakes (24.18 per cent) while the rest (75.82 per cent) include shaped tools (Table 2). Among the shaped tools, the proportion of core tools is nearly 55 per cent of the total assemblage, whereas that of flaka tools, (20.9 per cent) is over two-and-a-half times less than that of the former; the individual sitewise proportions fluctute around the combined one. Interestingly the core tool proportions at Maratipalem (50.62 per

TABLE 1

Typological classification of the artifacts of the Achulian tradition of Chintalapalem and Maratipalem.

Artifact type	*Chintala-palem No.*	*Marati-palem No.*	*Total* No.	*Total* Percentage
I. Cores	2	—	2	1.31
II. *Pebble tools*				
(*a*) Chopper	1	—	1	0.65
(*b*) Chooping tools	1	5	6	3.92
Total of pebble tools	2	5	7	4.58
III. *Handaxes*				
(*a*) Pear shaped	7	7	14	9.15
(*b*) Lanceolates	—	5	5	3.27
(*c*) Ovates	9	5	14	9.15
(*d*) Cordates	3	3	6	3.92
(*e*) Micoquian	—	3	3	1.96
(*f*) Pebble butted	3	3	6	3.92
(*g*) Miniature	16	6	22	14.38
Total of handaxes	38	32	70	45.75
IV. *Scrapers*				
(*a*) Side				
(i) Single side	6	1	7	4.58
(ii) Double side	6	4	10	6.54
(*b*) End	3	—	3	1.96
(*c*) Convex	1	1	2	1.31
(*d*) Concave	—	4	4	2.61
(*e*) Concavo-convex	—	1	1	0.65
(*f*) Round	1	4	5	3.27
Total of Scrapers	17	15	32	20.92
VI. Scrapper-cum-borer	—	1	1	0.65
VII. Discoids	—	2	2	1.31
VIII. Macrolunate	1	—	1	0.65
IX. *Flakes*				
(*a*) Simple	14	11	25	16.34
(*b*) Levallois	6	4	10	6.54
Total of flakes	20	15	35	22.88
Total of all artifacts	81	72	153	100.00

TABLE 2

Distribution of shaped tools and flakes and cores.

Assemblage	*Chintalapalem*		*Maratipalem*		*Total*	
	No.	*Percentage*	*No.*	*Percentage*	*No.*	*Percentage*
Shaped tools	59	72.84	57	57.17	116	75.32
Flakes and cores	22	27.16	15	20.83	37	24.18
Total	81	100.00	72	100.00	153	100.00

TABLE 3

Distribution of frequencies and percentages of core tools and flake components in Chintalapalem and Maratipalem.

Assemblage	*Chintalapalem*		*Maratipalem*		*Total*	
	No.	*Percentage*	*No.*	*Percentage*	*No.*	*Percentage*
Cores	2	2.47	—	—	2	1.31
Core tools	41	50.62	43	59.72	84	54.90
Total of cores and core tools	43	53.09	43	59.72	86	66.21
Flakes	20	24.69	15	20.83	35	22.88
Flake tools	18	22.22	14	19.45	32	20.91
Total of flakes and flake tools	38	46.91	29	40.28	67	43.79
Total of all	81	100.00	72	100.00	153	100.00

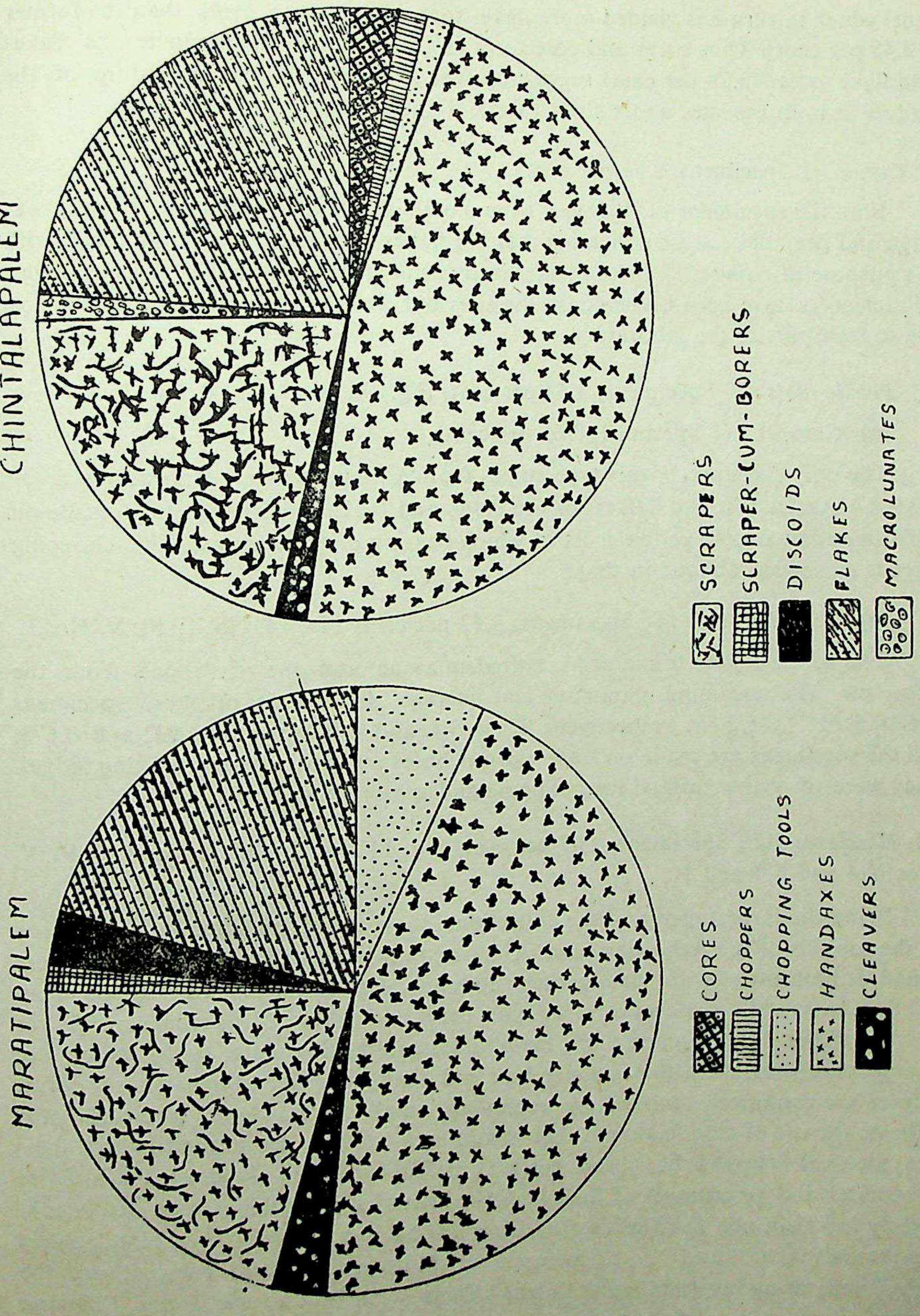

Fig. 8. Artifact typewise proportions of Maratipalem and Chintalapalem.

cent) which in turn has yielded more flake tools (22.22 per cent) than the former (19.45 per cent). Thus cores and core tools (56.21 per cent) predominate the flakes and flake tools (43.79 per cent) suggesting the core tool producing nature of the culture at both the sites under study (Table 3 and Fig. 8).

I. *Cores* : (2 Specimens; 1.31 per cent)

Both the specimens of this type have come from Chintalapalem. They bear large and deep flake scars indicating that big flakes have been struck off them with the purpose of converting them further into various types of tools. A large number of such cores have been observed on the sites but were not collected as they are too big to transport to the laboratory.

II. *Pebble tools* : (7 Specimens; 4.58 per cent) Fig. 14, No. 1; Pl. V, No. 1.

(a) *Chopper* : (1 Specimen; 0.65 per cent).

The only specimen of this type comes from Chintalapalem. It measures 8.9 × 8.6 × 4.4 cm. Its B/L and T/B ratios are 0.966 and 0.512 respectively. It is made on a flat-based quartzite pebble most of which bearing original cortex. The chopping edge is somewhat oblique in shape.

(b) *Chopping tools* : (6 Specimens; 3.92 per cent) Fig. 14, No. 1; Pl. V, No. 1.

Five of these were found at Maratipalem alone and the sixth one from the other site. The maximum, minimum and average dimensions of these specimens are 10.5 × 10.1 × 5.2 cm. respectively. Their B/L and T/B ratios are 0.932 and 0.673. All the specimens are made on waterworn pebbles and bear zig-zag cutting edges. They were probably utilised for chopping and spliting purposes.

III. *Handaxes* : (70 Specimens; 45 7 per cent) Fig. 14 Nos. 2-4 and 6-8 and 10; Pl. V, Nos. 2-4 and 6-8 and 10.

Being the largest group of the collection, these form an important category of the tool-kit of the Acheulian man. Almost equal percentages of handaxes were found at both the sites indicating their commonness at them. Majority of them (66 Specimens; 94.3 per cent) are made on cores and a few (4 Specimens; 5.7 per cent) on flakes signifying artifacers' main interest in making core tools, which are comparatively thicker with a massive butt end than the flake tools whose dorsal sufaces are completely worked by removing small flakes. Some specimens also indicate the use of step flaking in their manufacture. In order to understand their size metrical analysis has been carried out. Tables 4 and 4a show the sitewise freqencies and percentages of their lengths, breadths, and thicknesses. In length, slightly less than one third of the handaxes (31.58 per cent) from Chintalapalem measure between 8 and 9 cm., wheares at Maratipalem 18.75 per cent are the highest measuring between 9 and 10 cm. Their mean lengths are 9.2 and 10.0 cm. respectively showing their homogeneity to each other. Over 35 per cent of the

TABLE 4

Distribution of frequencies and percentages of lengths and breadths of handaxes in Chintalapalem and Maratipalem

Chintalapalem : 38 Maratipalem : 32

Range in cm.	*Chintalapalem*		*Maratipalem*		*Total*		*Chintalapalem*		*Maratipalem*		*Total*	
	No.	*Percentage*	*No.*	*Percentage*	*No.*	*Percentage*	*No.*	*Percentage*	*No.*	*Percentage*	*No.*	*Percentage*
3.1—4	0	0	0	0	0	0	1	2.63	0	0	1	1.43
4.1—5	0	0	0	0	0	0	6	15.79	1	3.13	7	10.00
5.1—6	0	0	0	0	0	0	13	34.21	6	18.75	19	27.14
6.1—7	5	13.16	0	0	5	7.14	9	23.68	6	16.75	15	21.43
7.1—8	7	18.42	4	12.5	11	15.71	2	5.26	10	31.25	12	17.14
8.1—9	12	31.58	5	15.63	17	24.29	4	10.53	4	12.50	8	11.43
9.1—10	4	10.53	6	18.75	10	14.29	1	2.63	4	12.50	5	7.14
10.1—11	1	2.63	3	9.38	4	5.71	2	5.26	0	0	2	2.86
11.1—12	4	19.53	3	9.38	7	10.00	0	0	1	3.13	1	1.43
12.1—13	3	7.89	3	9.38	6	8.57						
13.1—14	2	5.26	1	3.13	3	4.29						
14.1—15	0	0	3	9.33	3	4.29						
15.1—16	0	0	2	6.25	2	2.86						
16.1—17	0	0	1	3.13	1	1.43						
17.1—18	0	0	1	3.13	1	1.43						
Total :	38	100.00	32	100.00	70	100.00	38	100.00	32	100.00	70	100.00
Mean :	9.2 cm.		10.0 cm.		9.6 cm.		6.2 cm.		6.7 cm.		6.5 cm.	

TABLE 4a

Distribution of frequencies and percentages of thickness measurements of handaxes in Chintalapalem and Maratipalem

Chintalapalem : 38 Maratipalem : 32

Range in cm.	*Thickness*					
	Chintalapalem		*Maratipalem*		*Total*	
	No.	*Percentage*	*No.*	*Percentage*	*No.*	*Percentage*
1.6—2.0	0	0	2	6.25	2	2.86
2.1—2.5	16	42.11	3	9.38	19	27.14
2.6—3.0	10	26.32	6	18.75	16	22.86
3.1—3.5	6	15.79	8	25.00	14	20.00
3.6—4.0	1	2.63	3	9.38	4	5.71
4.1—4.5	3	7.89	2	6.25	5	7.14
4.6—5.0	2	5.26	3	9.38	5	7.14
5.1—5.5	0	0	2	6.25	2	2.86
5.6—6.0	0	0	3	9.38	3	4.29
Total :	38	100.00	32	100.00	70	100.00
Mean :	3.0 cm.		3.2 cm.		3.1 cm.	

Maratipalem handaxes fall in the breadth range of 5 to 7 cm. while at Chintalapalem more than 50 per cent specimens measure in the same range; the average breadth of the tools at both the sites is 6.5 cm. In breadth, about 70 per cent specimens of Chintalapalem measure between 2 and 3 cm., and at Maratipalem in the same class there are nearly 28 per cent. The mean thickness of handaxes like length and breadth does not indicate any significant difference between Chintalapalem (3.0 cm.) and Maratipalem (3.2 cm.) sites (Figs. **9**, 10 and 11).

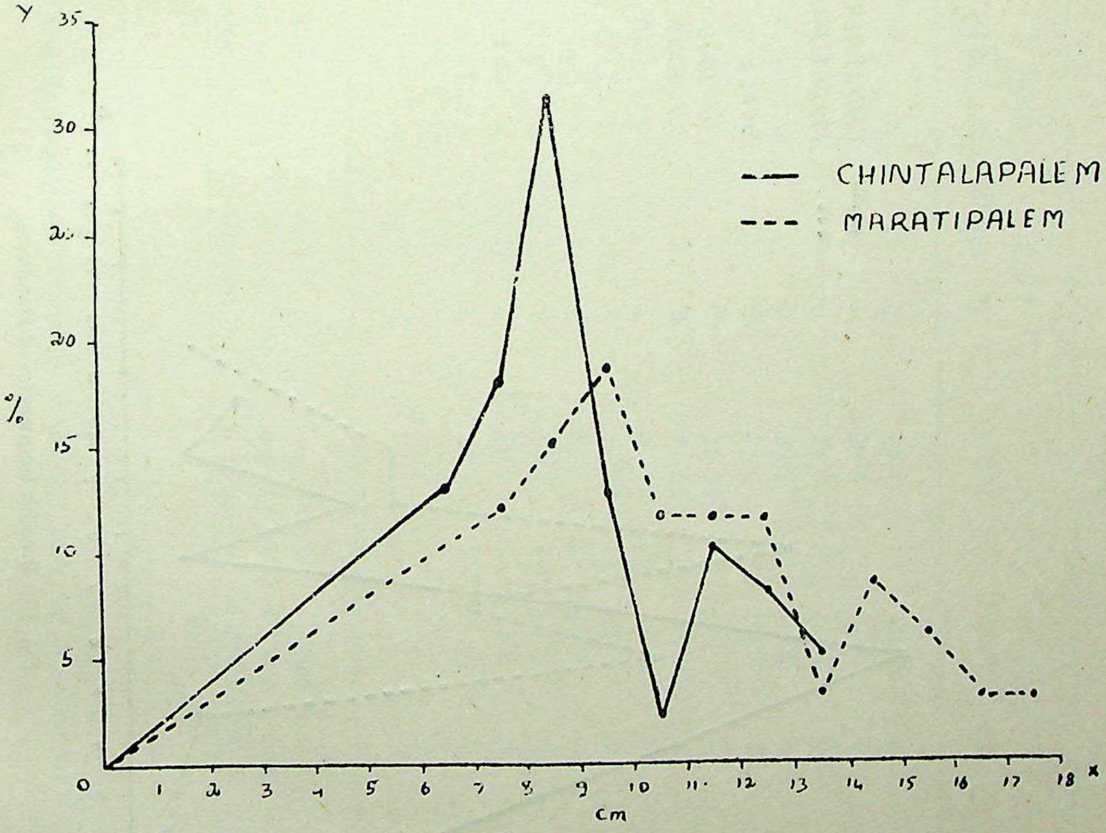

Fig. 9. Length frequencies of Handaxes.

Table 5 gives the B/L and T/B ratios of these tools from both the sites. At both of them, in about 70 per cent handaxes the B/L ratio ranges from 0.56 to 0.76. The handaxes thus tend to the narrow and longer. In more than 80 per cent tools from Chintalapalem, T/B ratio lies between 0.36 to 0.61 and in Maratipalem in the same range about 70 percent of tools are there. This shows that majority of the handaxes at the sites under study tend to be thinner. The maximum, minimum and average measurements of the specimens are 16.9×

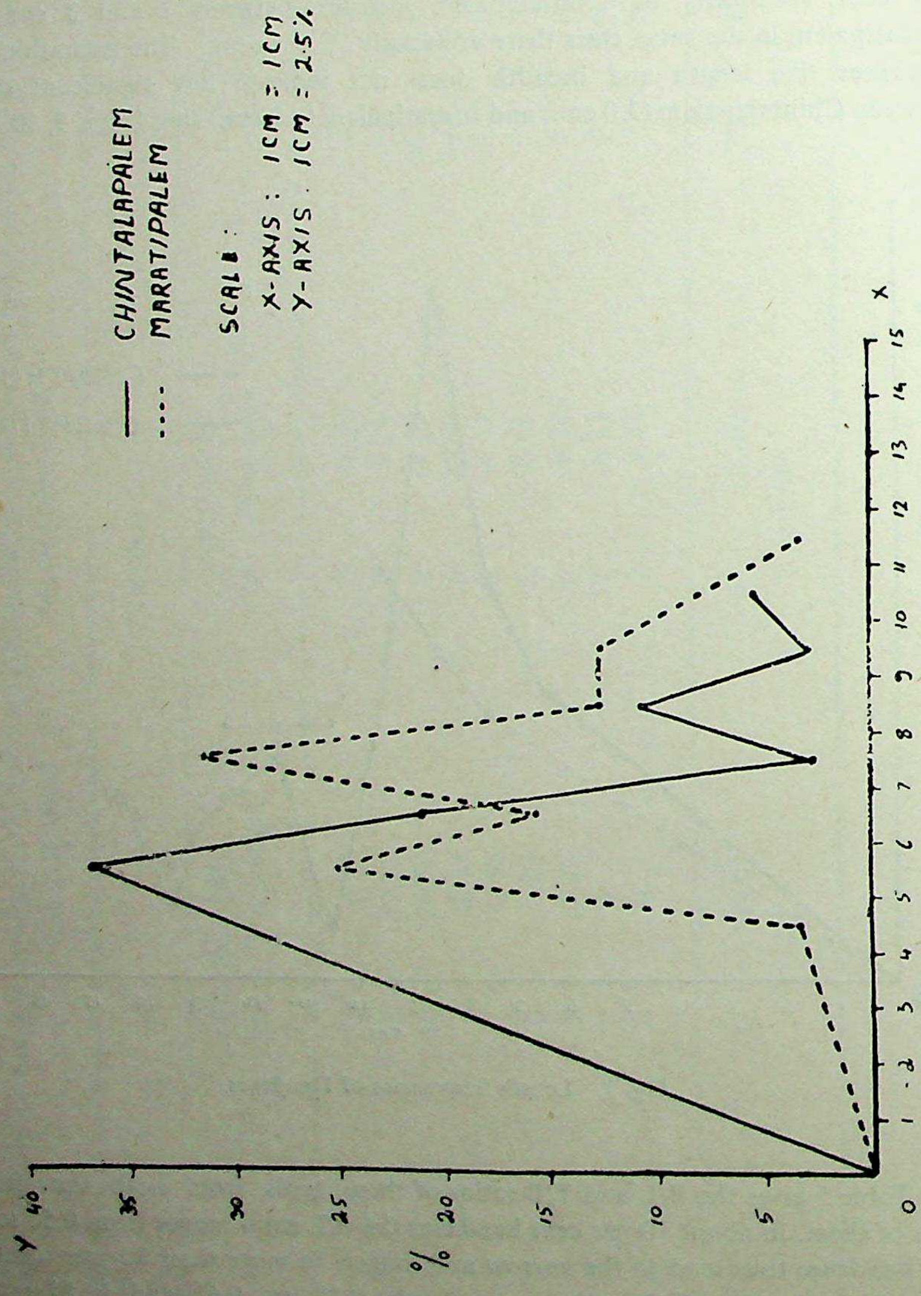

Fig. 10. Breadth frequencies of Handaxes.

TABLE 5

Distribution of frequencies and percentages of B/L and T/B ratios of handaxes in Chintalapalem and Maratipalem

Chintalapalem : 38 Maratipalem : 32

Ratio	*B/L ratio*						*T/B ratio*					
	Chintalapalem		*Maratipalem*		*Total*		*Chintalapalm*		*Maratipalem*		*Total*	
	No.	*Percentage*	*No.*	*Percentage*	*No.*	*Percentage*	*No*	*Percentage*	*No.*	*Percentage*	*No.*	*Percentage*
0.260—0.309							2	5.26	1	3.13	3	4.29
0.310—0.359							0	0	2	6.25	2	2.86
0.360—0.409	1	2.63	0	0	1	1.43	8	21.05	4	12.50	12	17.14
0.410—0.459	0	0	1	3.13	1	1.43	7	18.42	5	15.63	12	17.14
0.460—0.509	0	0	1	3.13	1	1.43	8	21.05	5	15.63	13	18.57
0.510—0.559	3	7.89	2	6.25	5	7.14	6	15.79	5	15.63	11	15.71
0.560—0.609	10	26.32	4	12.50	14	20.00	4	10.53	4	12.50	8	11.43
0.610—0.659	2	5.26	10	31.25	12	17.14	2	5.26	4	12.50	6	8.57
0.660—0.709	5	13.16	7	21.88	12	17.14	0	0	2	6.26	2	2.86
0.710—0.759	9	23.68	2	6.25	11	15.71	0	0	0	0	0	0
0.760—0.809	2	5.26	2	6.25	4	5.71	0	0	0	0	0	0
0.810—0.859	4	10.53	1	3.13	5	7.14	0	0	0	0	0	0
0.860—0.909	1	2.63	0	0	1	1.43	0	0	0	0	0	0
0.910—0.959	1	2.63	1	3.13	2	2.86	1	2.63	0	0	1	1.43
0.960—1.009	0	0	1	3.13	1	1.43	0	0	0	0	0	0
Total	38	100.00	32	100.00	70	100.00	38	100.00	32	100.00	70	100.00
Mean	0.669		0.659		0.664		0.598		0.485		0.542	

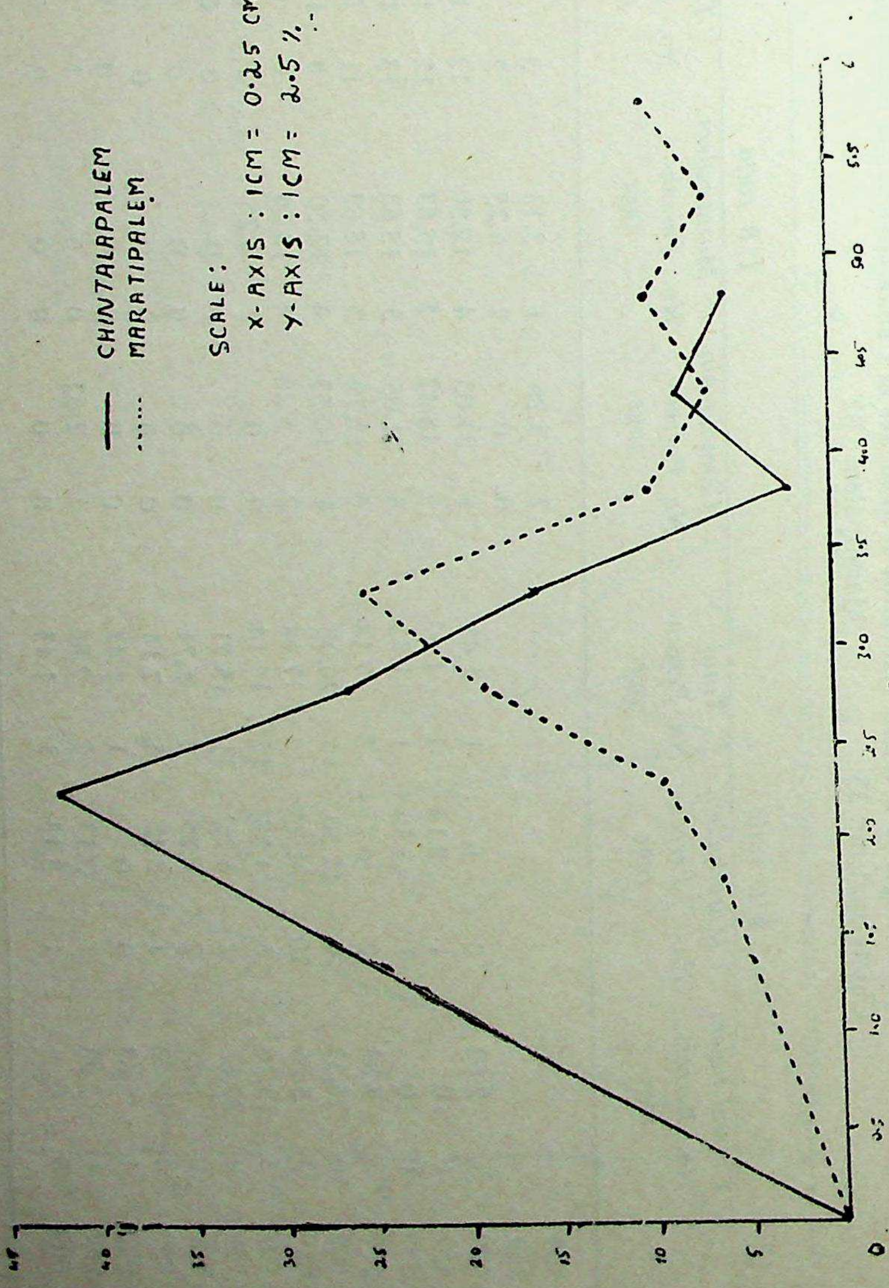

Fig. 11. Thickness frequencies of Handaxes.

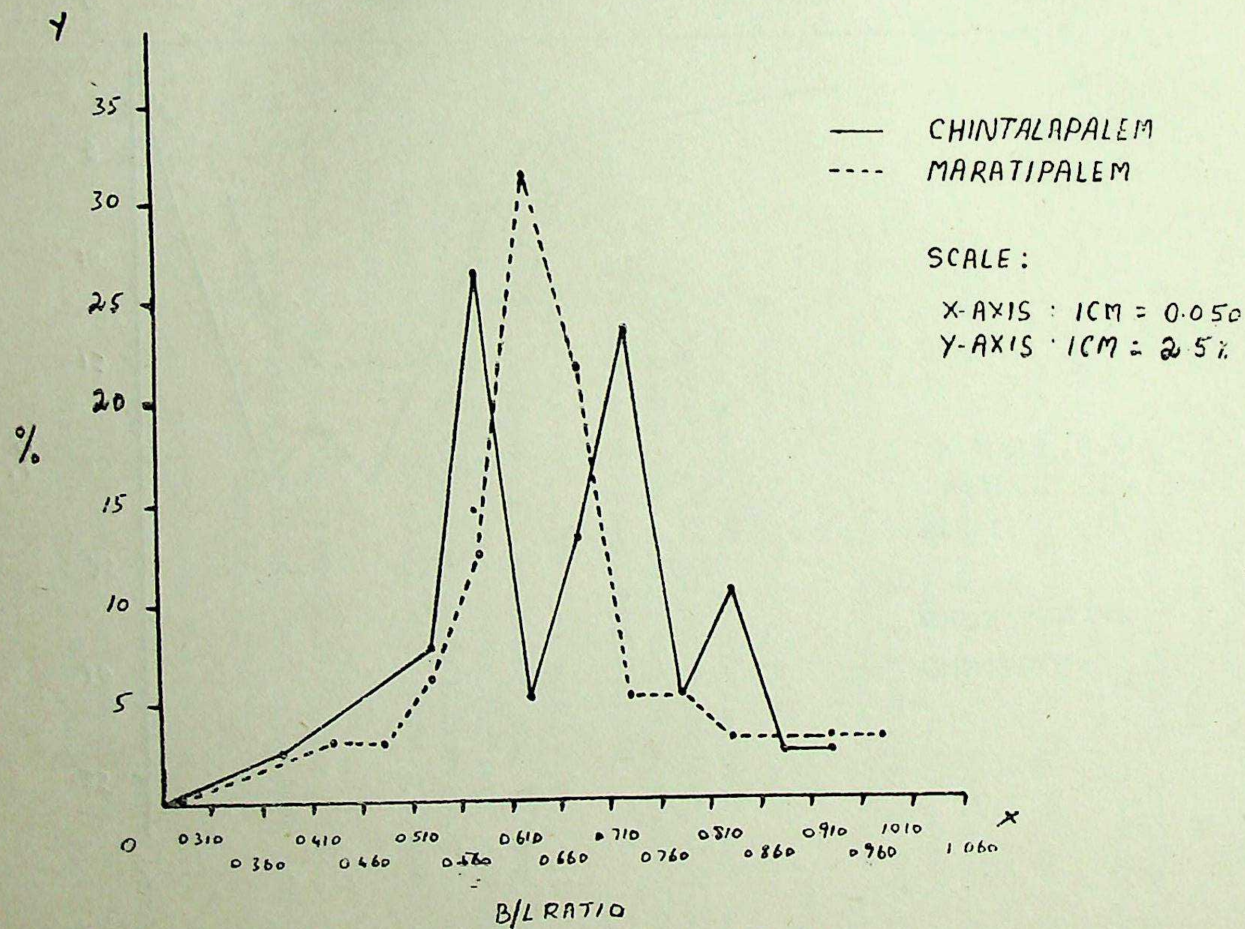

Fig. 12. B/L Ratio frequencies of Handaxes.

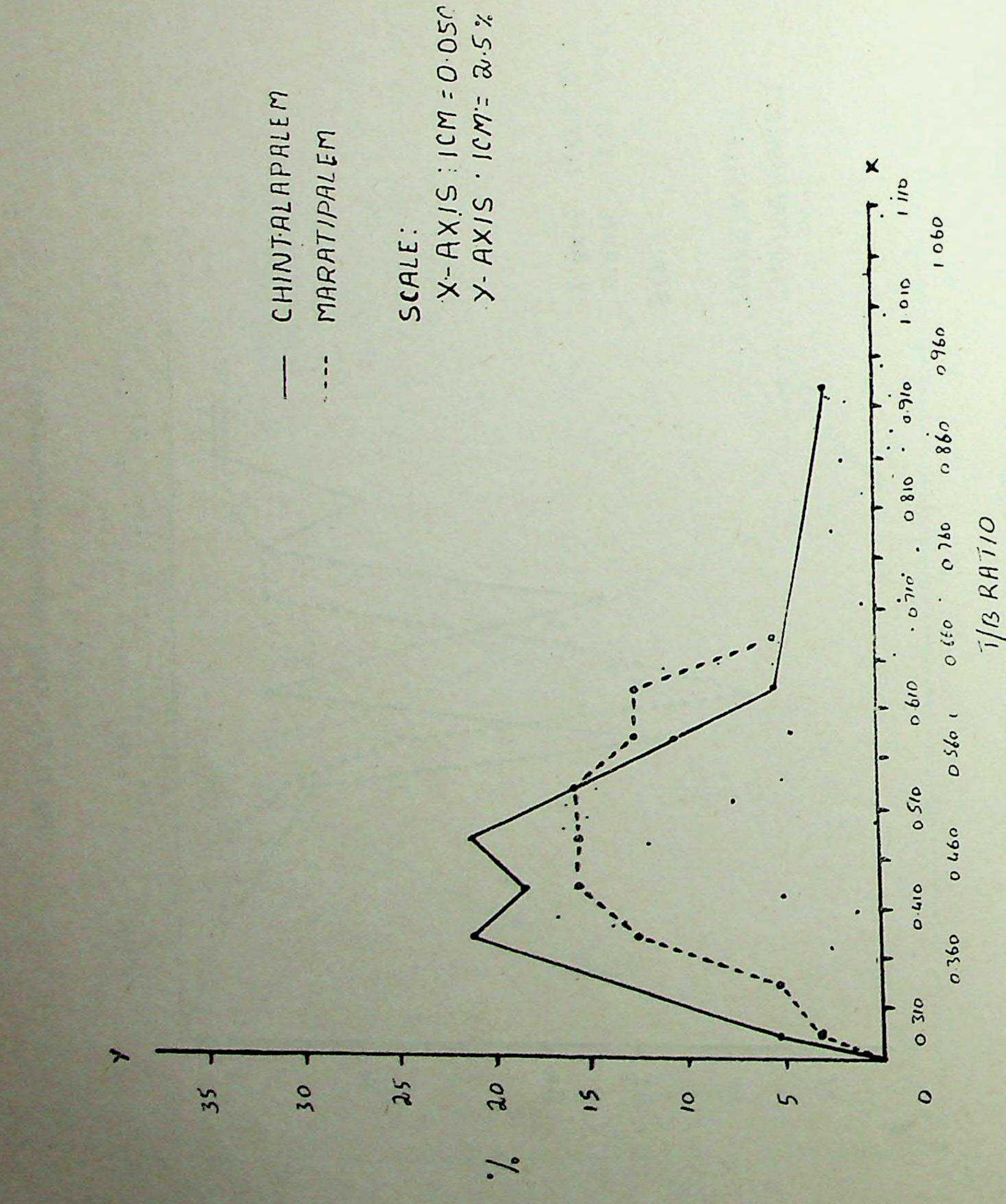

Fig. 13. T/B Ratio frequencies of Handaxes.

11.2×6.1 cm. Those with minimum dimensions represent miniature handaxes. The individual subtype-wise metrical analyses show that the maximum, minimum and average dimensions of various subtypes excepting miniature handaxes are 12.9-17.2×8.7-11.2×3.7-6.1, 6.5-11.5×4.2-7.5×1.9-3.2 and 10.1-14.0×6.7-8.2×2.7-4.5 respectively. The mean B/L and T/B ratios are 0.66 and 0.54 (figs. 12, 13).

Based on the shape, size and the extent of working, the handaxes are divisible into : (a) Paper Shaped, (b) Lanceolate, (c) Ovate, (d) Cordate, (e) Micoquian, (f) Pebble-butted and (g) Miniature handaxes.

(a) *Pear shaped Handaxes* : (14 specimens; 9.15 per cent), Fig. 14 No. 3; Pl. V, No. 3.

The specimens of this subtype all core-made occur in equal proportions at both the sites. They range in length between 8.5 and 16 cm., in breadth between 4.2 and 11.2 cm and in thickness between 2.5 and 6.1. cm. respectively. An average specimen measure 12×7.8×4.3 cm. Their B/L and T/B ratios are 0.65 and 0.57 respectively.

(b) *Lanceolates* : (5 specimens; 3.27 per cent) Fig. 14 No. 2; Pl. V, No. 2.

All the specimens come from Maratipalem. Four are made on cores and one on flake. They range in length from 11.5 to 17.2 cm., in breadth from 7.5 to 8.7 cm., and in thickness from 3.2 to 4.6 cm. Their average measurements are 14×7.9×3.7 cm. Their B/L and T/B ratios are 0.56. and 0.48 respectively.

(c) *Ovates* : (14 specimens; 9.15 per cent) Fig. 14 No. 6; Pl. V, No. 6.

These occur at both Chintalapalem (9 specimens) and Maratipalem (5 specimens). Two are made on flakes and the rest on cores. They range in length from 6.5 to 14.7 cm., in breadth from 4.7 to 10.7 cm. and in thickness from 1.9 to 3.7 cm. Their average measurements are 9.6×7.1×2.7 cm. Their B/L and T/B ratios are 0.75 and 0.58, respectively.

(d) *Cordates* : (6 specimens; 3.92 per cent) Fig. 14 No. 10; Pl. V, No. 10.

These too occur in equal proportions at both sites. Only one is made on flake and the remaining on cores. They range in length from 7.9 to 12.9 cm.

(e) *Micoquian* : (3 specimens; 1.96 per cent) Fig. 14 No. 7; Pl. V, No. 7.

All the specimens come from Maratipalem only. These are exclusively made on cores. They range in length from 9.9 to 15.2 cm. and in breadth from 6.6 to 9.3 cm. and in thickness from 3.2 to 5.5 cm. Their B/L and T/B ratios are 0.67 and 0.55 respectively.

(f) *Pebble-butted handaxes* : (6 specimens; 3.92 per cent) Fig. 15 No. 18; Pl. V, No. 18.

Equal numbers of these were found at both the sites. These retain a few patches of original cortex on their butts and lateral sides. On the other surfaces,

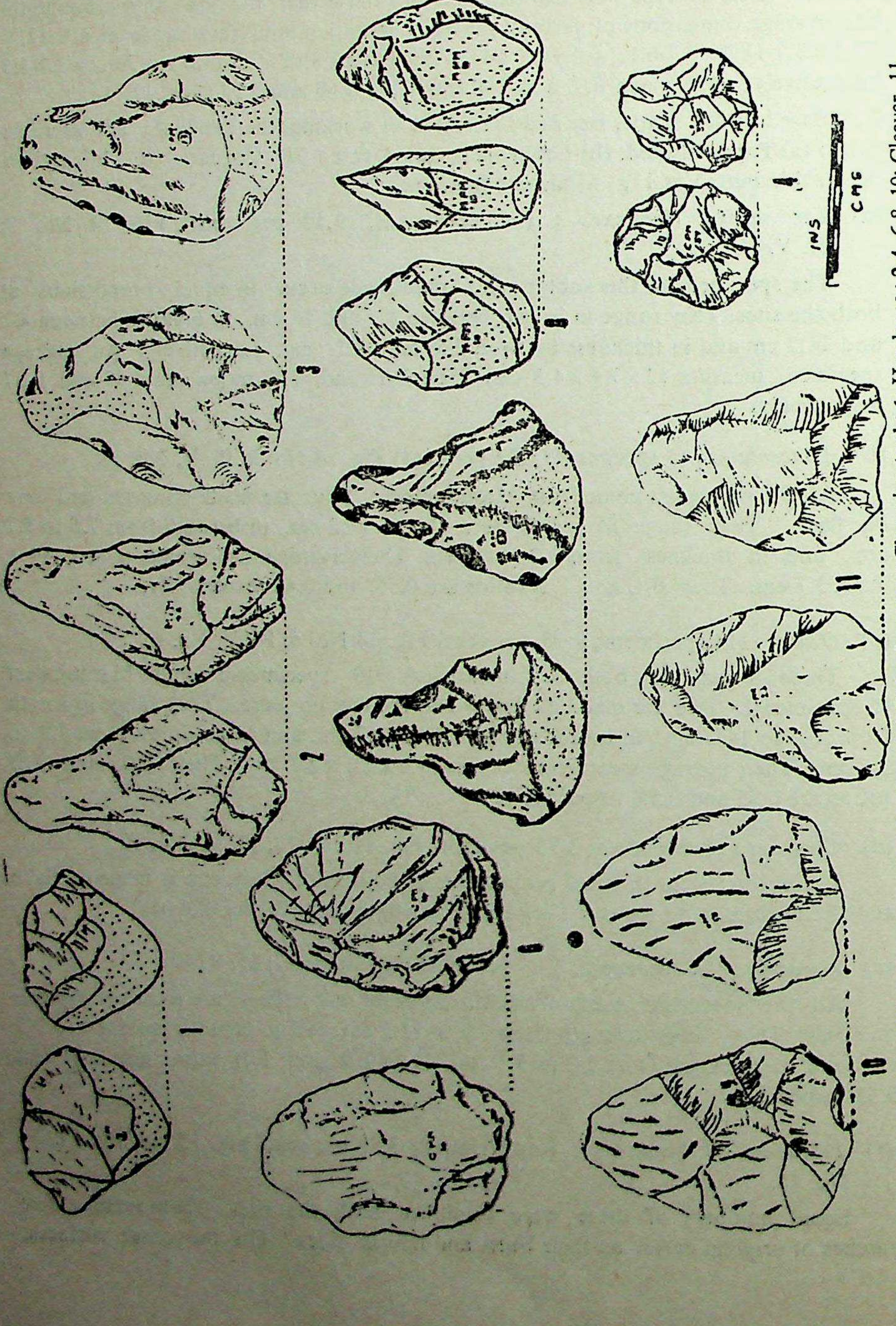
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Fig. 14. Palaeolithic tools from Maratipaḷem and Chintalapaḷem : Chopping tool : 1; Handaxes : 2-4, 6-8, 10; Cleaver 11.

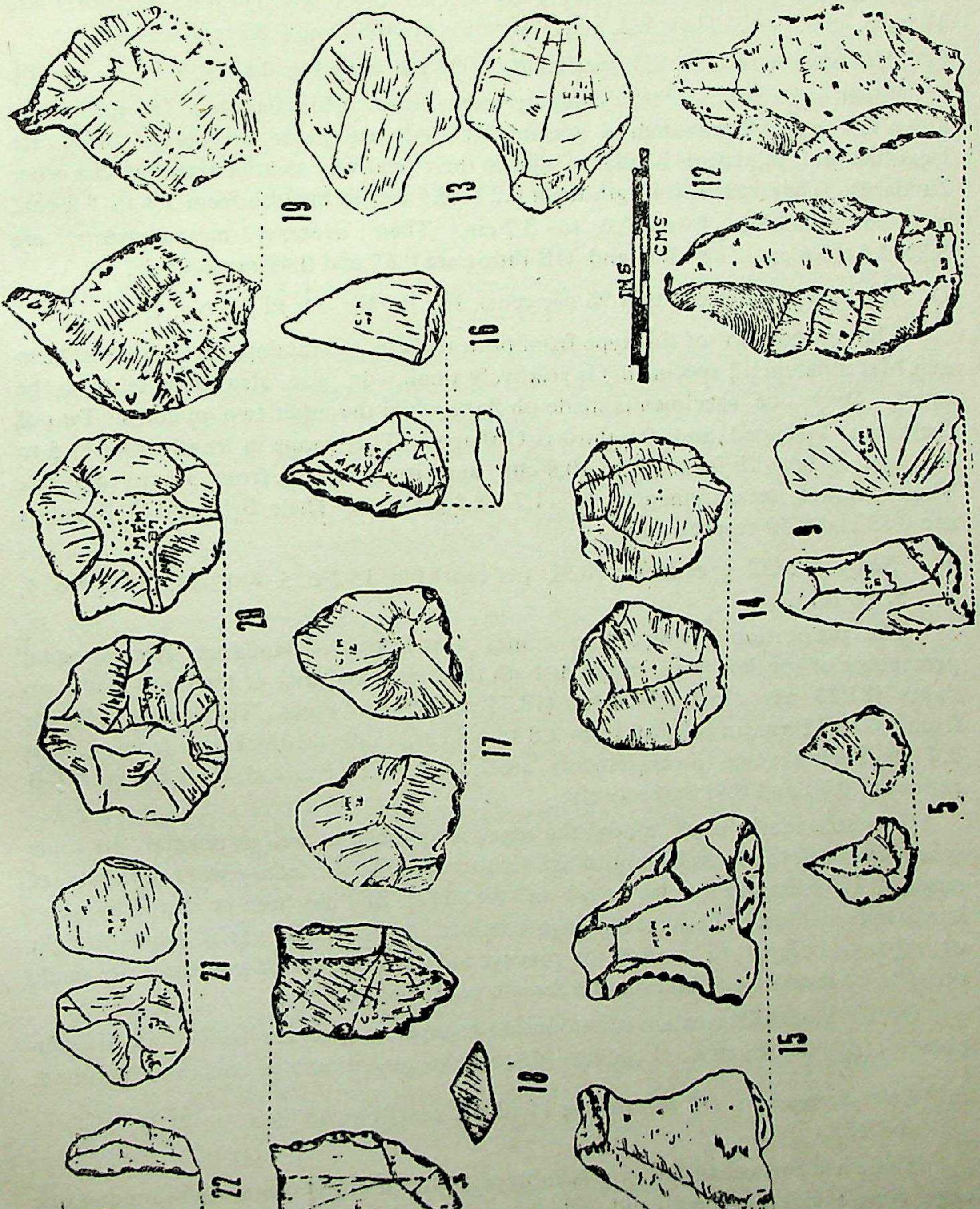
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Fig. 15. Palaeolithic tools from Maratipalem and Chintalapalem : Scrapers : 5, 9, 12, 14-18; Borer-cum-scraper : 19; Discorid : 20; Macrolunate : 22; Flakes : 13, 21.

working is done by means of step flaking and the end is much pointed with sharp lateral edges. They range in length from 8.1 to 13.8 cm., in breadth from 5.2 to 9.2 cm., and in thickness from 2.9 to 5 cm. Their average measurements are 10.6×6.7×3.7 cm. Their B/L and T/B ratios are 0.57 and 0.56 respectively.

(g) *Miniature handaxes* : (22 specimens; 14.38 per cent) Fig. 14 No. 4; Pl. V, No. 14.

Most specimens of this category come from Chintalapalem (16 specimens) and a few from Maratipalem (6 specimens). All are made on cores. They are classified as 'miniature handaxes' due to their relatively smaller size than the other handaxes. They range in length from 6.2 to 9.6 cm. in breadth from 3.8 to 7.8 cm., and in thickness from 2.0 to 3.2 cm. Their average measurements are 8.2×5.5×2.6 cm. Their B/L and T/B ratios are 0.67 and 0.49 respectively.

IV. *Cleavers* : (3 specimens; 1.96 per cent), Fig. 14 No. 11; Pl. V, No. 1.

The proportion of this type from both the sites (Chintalapalem : one specimen and Maratipalem : 2 specimens) is relatively small. In size also they tend to be small. Only one specimen is made on flake while the other two on cores. Two of them are V-shaped and the third is U-shaped. They range in length from 11.5 to 18.8 cm., in breadth from 7.0 to 10.8 cm. and in thickness from 3.6 to 4.8 cm. Their average measurements are 11.7×8.8×4.4 cm. Their B/L and T/B ratios are 0.85 and 0.50 respectively.

V. *Scrapers* : (32 specimens; 20.92 per cent) Fig. 15 No. 5, 9, 12-18; Pl. V, No. 5, 9, 12-16.

The proportion of this type comes next to that of handaxes. Almost equal percentage of specimens are found at both the sites. Majority of them are made on flakes (81.25 per cent) and a few (18.75 per cent) on cores. They range in length from 3.6 to 12 cm., in breadth from 2.8 to 8.8 cm., and in thickness from 0.9 to 3.4 cm. Their average measurements are 7.5×4.9×2.0 cm. and their B/L and T/B ratios are 0.70 and 0.41 respectively.

The secondary work along the edges is unifacial as well as bifacial. In some specimens both the lateral margins are retouched. The secondary work consists of small flake scars along the edges of the flake and has been produced by wood hammer technique. The scraping edge confined to one side varies from straight or zig-zag, oblique to convex or concavoconvex form. Most specimens are made on plain or levalloisian flakes and a few on blade flakes.

On the basis of the extent of retouch and shape, scrapers are divided into six subgroups : (a) side, (b) end, (c) convex, (d) concave, (e) concavo-convex and (f) round.

(a) *Side Scrapers* : (17 specimens; 11.12 per cent) Fig. 15 No. 16; Pl. V, No. 16 and 12.

There are two categories in this subtype. They are : (i) those worked along one edge (single side scrapers) and (ii) those worked along both edges (double side scrapers).

(i) *Single-side scrapers* : (7 specimens; 4.58 per cent) Fig. 15 No. 16; Pl. V, No. 16.

One specimen of this subtype is made on core and the rest on flakes. Six specimens come from Chintalapalem and the seventh comes from Maratipalem. The working edge varies from straight, zig-zag to slightly oblique form. Retouch is executed from one or both faces. In length scrapers measure from 5.7 to 7.6 cm., in breadth from 3.8 to 5.3 cm. and in thickness from 1.2 to 2.4 cm. Their average dimensions are 6.2×4.4×1.5 cm. Their B/L and T/B ratios are 0.70 and 0.34 respectively.

(ii) *Double side scrapers* : (10 specimens; 6.54 per cent) Fig. 15 No. 12; Pl. V, No. 12.

These constitute nearly one-third of the total scrapers. Six come from Chintalapalem and four from Maratipalem. Six are made on flakes while the rest on plain flakes. The retouch is executed either unifacially or bifacially. The scraping edge confined to both the sides varies from straight or zig-zag, oblique to convex form. In length these range from 5.7 to 13.1 cm., in breadth from 3.5 to 8.8 cm. and in thickness from 1.0 to 3.3 cm. An average specimen measures 9.2×5.2×2.1 cm. Their B/L and T/B ratios are 0.57 and 0.42 respectively.

(b) *End scrapers* : (3 specimens; 1.96 per cent) Fig. 15 No. 9 and 17; Pl. V, No. 9.

These specimens, all made on flakes, occur only at Chintalapalam. They measure in length from 5.6 to 7.3 cm., in breadth from 3.5 to 5.1 cm., and in thickness from 1.1 to 2.1 cm. Their average measurements are 6.3×6.1×2.5 cm. Their B/L and T/B ratios are 0.67 and 0.41 respectively.

(c) *Convex scrapers* : (2 specimens; 1.31 per cent) Fig. 15 No. 5; Pl. V, No. 5.

These are equally represented at both the sites. All made on flakes measure in length from 3.6 to 5.1 cm., in breadth from 2.8 to 4.3 and in thickness from 1 to 1.1 cm. Their average measurements are 4.4×3.6×1.1 cm. Their B/L and T/B ratios are 0.82 and 0.31 respectively.

(d) *Concave scrapers* : (4 specimens; 2.61 per cent) Fig. 15 No. 15; Pl. V, No. 15.

All these made on flakes come from Maratipalem. They range in length from 4.2 to 9.1 cm., in breadth from 3.3 to 6.6 cm., and in thickness from 1.0 to 2.3 cm. Their B/L and T/B ratios are 0.77 and 0.36 respectively.

(e) *Concavo-convex scraper* : (1 specimen; 0.65 per cent)

The only representative of this sub-type on flake comes from Maratipalem. It measures 7.3×5.6×1.6 cm. Its B/L and T/B ratios are 0.77 and 0.29 respectively.

(f) *Round scraper* : (5 specimens; 3.27 per cent) Fig. 15 No. 14; Pl. V, No. 14.

Four pieces of this subtype were picked up from Maratipalem and the fifth from Chintalapalem. The edges are sharpened by secondary working with cylindrical or bone hammer. The entire surface of the tools are flaked well.

VI. *Scraper-cum-borer* : (1 specimen; 0.65 per cent) Fig. 15 No. 19; Pl. V, No. 19.

This specimen made from a broad thick core was found at Maratipalem. One of its sides is bifacially retouched while the other side was converted into a small tip. It measures 9.2×7.0×3.6 cm. Its B/L and T/B ratios are 0.76 and 0.51 respectively. It must have been used for boring as well as scraping purposes.

VII. *Discoids* : (2 specimens; 1.31 per cent) Fig. 15 No. 20, Pl. V, No. 20.

These two pieces made on cores are from Maratipalem. They are worked bifacially and have short wavy edges all round the periphery.

VIII. *Macrolunate* : (1 specimen; 0.65 per cent) Fig. 15 No. 22; Pl. V, No. 22.

The only flake-made specimen of this type comes from Chintalapalem. It is half-moon shaped and bigsized. The back is well blunted by retouch while the other side is sharpened. It measures 5.1×2.1×1.3 cm. Its B/L and T/B ratios are 0.41 and 0.62 respectively.

IX. *Flakes* : (35 specimens; 22.88 per cent) Fig. 15 No. 13 and 21; Pl. V, No. 13 and 21.

(i) *Simple flakas* : (25 specimens; 16.34 per cent) Fig. 15 No. 13; Pl, V, No. 13.

There flakes come from unprepared cores. They are roughly square, rectangular and irregular in shape. They were removed from flat unfacted platforms by the use of direct hammer. They have prominent bulbs of percussion with ripples of force seen occasionally. They measure in length from 3.8 to 10.3 cm., in breadth from 2.3 to 7.3 cm., and in thickness from 0.9 to 4.6 cm. Their average measurements are 7.6×4.9×2.0 cm. Their B/L and T/B ratios are 0.66 and 0.40 respectively. Majority of them are indeterminate flakes while the rest (four and two) are side and end flakes respectively.

(ii) *Levalloise flakes* : (10 specimens; 6.54 per cent) Fig. 15 No. 21; Pl. V, No. 21.

These are of short or elongated oval shape and tend to be small and thin. They are mainly worked on their dorsal faces by centrally directed flaking. Their symmetrical shape, sharp edges and extreme thinness obviously show that they were prepared prior to their removal from the core. Their platforms are very short and narrow and the bulb of percussion is less prominent than in the previous category of flakes. They measure in length from 4.9 to 7.9 cm. in breadth from 4 to 6.2 cm. and in thickness from 1.1 to 1.9 cm. Their average measurements are 6.5×5.0×1.6 cm. Their B/L and T/B ratios are 0.78 and 0.32 respectively.

Some Observations

The present stone tool assemblages compare well with those from the neighbouring districts of Kurnool, Prakasam, Nellore Guntur, Nalgonda and Cuddapah besides those from various localities on the Rallakalava of the same geographical area as ours in terms of typotechnological characteristics and stratigraphical positions.

The proportion of pebble tools (4.58 per cent) from our sites is extremely low though the collection is relatively larger and should unequivocally form an invarible component of the handaxe industry as in most other parts of the country unlike in South and East Africa where they were found to form a separate tradition. Unlike ours, about 40 per cent of Isaac's collection from Kurnool constituted pebble tools a large number of which were also found in Cuddapah by Thimma Reddy. In Murthy's collection from Rallakalava the concentration of pebble tools is quite higher in his technological group A (21.4 per cent) than in B (5.8 per cent) which approximates our proportion. This observation nicely fits into the technologically and culturally advanced very finely made Acheulian handaxe level reflecting in its later antiquity. Moreover it is interesting and important to note that both handaxes and pebble tools are mostly made on pebbles. It is not clear how Soundara Rajan on the basis of a small collection of artifacts inferred that an earlier pebble tool culture existed at Karempudi or Nagarjunakonda in Guntur District.

The next tool type is handaxe which, with the highest proportion (45.75 per cent) comprising various sub-types, forms the main type of the assemblages. Miniature handaxes (14.38 per cent) comprise nearly one-third of the total handaxes. Several of them possessing sharp pointed ends must have been hafted into suitable wooden handles and used as spear-heads in hunting wild animals. Ovates and pear-shaped handaxes occurring in equal proportions (9.15 per cent each) from the other important weapons of the collection.

Next to handaxes come the frequencies of flakes (22.88 per cent) and scrapers (20.92 per cent). Among the flakes, the non-levalloisian (16.34 per cent) are more dominant than the levalloisian (6.54 per cent), whose occurrence need not be construed, as Bordes observed, as a later cultural development. Their appearnce in small percentage can be well augmented with an earlier antiquity for the assemblages than true Middle Palaeolithic one. It further reveals the real chapter of the cultural stage in its orientation more to the clactonian than to the levalloisian way of life but simultaneously adapting to the new forces of technological and cultural advancement in the occasional manufacture of levalloisian flakes which predominate the tool kit of the Middle Palaeolithic man.

Scrapers comprising nearly one-half of the handaxes form an important and interesting group. Among the side scrapers—single and double, concave and convex and concavoconvex together exceed the end and round scrapers. All these were undoubtedly used for various functions from cutting to scraping, The relatively large proportion of this type speaks of not only an advanced technological know-how but also of the nature of food economy of the people.

Cleavers are by far the most uncommon in both the assemblages. The ratio between them and handaxes is 1 : 23, showing the predominance of the letter in the biface types. Two of the specimens have V-shaped butts while the third has U-shape. The working edges are transverse in form. Technologically they are as highly advanced as the handaxes.

The rest of the tool types such as scraper-cum-borer (0.65 per cent), discoids (1.31 per cent), and macrolunate (0.65 per cent) occur in very insignificant numbers which together comprise 2.61 per cent of the total collection.

Over one-half of the tool types have been produced out of cores shedding light on the core tool-producing nature of the culture (54.9 per cent) although the flake and flake tool proportion is also significantly high, a tendency leaning to an advanced way of life. A glance at the technology of the artifacts demonstrates that for most of the time man had been employing the stone, bone or wooden cylindrical hammer techniques in combination with other techniques. This again shows that the man of this time was typotechnologically more advanced than his predecessors of the early Acheulian and Abbevillian traditions.

The artifactual evidence discussed above bears stratigraphical proof in the 40 cm. tool-bearing gravel deposit (which is finer and loose) noticed at Chintalapalem which is comparable to similar deposit from a typical stratified section of a dry phase on the smaller rivers in Kurnool District.[9] The deposit may have been laid sometime during the closing stages of the Middle Pleistocene or the beginning of the Upper Pleistocene, the balance tilting more in favour of the latter than the former. This chronological observation is well in tune with the typotechnological level, tool sizes and their proportions.

In fine, the Acheulian tool assemblages from both the sites of southeastern Andhra Predesh evidently belong to the closing stage of the lower Palaeolithic period. The occurrence of pebble tools supports the well established fact that these constitute a part and parcel of the Indian handaxe tradition. The chief tool type is the thinner, lighter and systematically-shaped Acheulian handaxe followed by scraper, the high incidence of which and the occasional production of blades reflects the slow evolution of man from the later Acheulian time to early Middle Palaeolithic times. A notable feature of the evidence is the marked preference of man for manufacturing core tools whose relatively small size tends to provide them an intermediate position between the lower and middle Palaeolithic periods. In the absence of the physical remains of the people or other associated evidences we have to infer their way of life only with the help of the surviving tools. Judging from the well-made tools of various types we can say that their owners were highly advanced and skilled hunter-cum-food gatherers. The moderately forested area of today in the vicinity of the sites all along the Tirupati hills including their numerous valleys equipped with several natural springs and rockshelters must have formed an excellent abode for the folk of this stage as also to their successors who produced various complex tool types. The growth and development of their culture must have been accelerated by the congenial climatic conditions.

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4

EASTERN INDIAN NEOLITHIC CULTURE IN NORTH COASTAL ANDHRA PRADESH

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In 1924, L.A. Cammiade[1] first drew our attention to stray occurrences of neolithic celts in the lower Godavery Valley. He mentions adzes, trapezoid axe-heads and a small shouldered axe—such which resemble in shape as would tally in form with the Eastern Indian neolithic celts. But Cammiade's pioneer discoveries, were not followed by fresh investigations in the area for nearly half a century thereafter. With the excavation of Jami, in Visakhapatnam District,[2] in 1971, which brought to light a neolithic-chalcolithic culture of Eastern Indian affiliation, Cammiade's discoveries in the lower Godavary Valley assumed significance. The excavation indicated broadly the possibility of a Eastern Indian type of neolithic culture also coming to light in the northern part of coastal Andhra Pradesh.

The author's explorations in the same year, at Rampachodavaram in East Godavary District and Elamanchili in Visakhapatnam District, were rewarded by the find of three neolithic celts—a rounded butt axe, a flat celt and a quadrangular celt—and a half broken perforated stone. In 1972, D. Bhaskara Murti, collected some ground stone celts at Sitapalle, six kilometres to the east of Rampachodavaram and followed up the evidence in Visakhapatnam District, where he was able to discover in 1973-74 six neolithic tool-bearing localities. A second visit to Rampachodavaram by the author in 1976, brought to light a factory site with a total of 241 specimens, including 29 nodules and 154 bi-product flakes. In 1977-78, Miss M. Kasturibai, discovered six neolithic sites on the Eleru and its tributaries in East Godavary District. In West Godavary District, D. Bhaskara Murti and B. David Raju spotted four neolithitic sites. These make a total of twenty-one neolithic sites discovered in Visakhapatnam and East and West Godavary Districts. The neolithic tool-types discovered at all these localities are more or less of a similar kind and find analogues in the Eastern Indian sites known from Uttar Pradesh, Orissa, Bengal, Bihar, Assam and other states.

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The tool types consist of rectilinear shouldered celts, quadrangular axes and adzes, flat celts, rounded butt axes and adzes, chisels, wedges and perforated stones. The find of a number of unfinished celts and bi-product flakes, at Rampachodavaram and a neighbouring site Bhupatipalem, suggest local manufacture of the tool types. For purposes of toolmaking, they used in most cases, locally available charnockites and basalts. Perforated stones, however, were all made of Khondalite.

Sl. No.	*TYPES*	*SITES*														
		BYP	*MKV*	*ZOO*	*MDV*	*LKP*	*ELM*	*KSP*	*RCV*	*STP*	*PLV*	*BPP*	*LND*	*KNG*	*BDL*	*LBT*
1.	Rectilinear schouldered celt							2								
2.	Quadrangular axe	1	1	1	—	—	—	3								
3.	Quadrangular adze	1	2		1	4		2	1							
4.	Quadrangular chisel					1										
5.	Flat celt						1	3								
6.	Rounded Butt axe							1	3	2	1	1			1	
7.	Round Butt adze		1	1	2	2	1	2	7	3	2	2	1	2		
8.	Picks								2							
9.	Wedges		1		1											
10.	Perforated stones	5	2	2	2	3	—	14	2							2

BYP : **Boyipalem**
ZOO : **Visakhapatnam Zoo**
LKP : **Lankela Palem**
KSP : **Kasi patnam**
MKV : **Marikavalasa**
MDV : **Madhuravada**
ELM : **Elamanchili**

(All in Visakhapatnam District)

RCV : **Rampachodavarom**
PLV : **Polavaram**
LBT : **Labbarti**
STP : **Sitapalli**
BPP : **Bhopathipalem**

(All in East Godavary District)

LDP : **L.N.D. Pet.**
BDL : **Bhimadolu**
KNG : **Konguvanigudem**

(All in West Godavari District)

The neolithic celts were always found in association of quantities of microliths, made of crystalline and crypto-crystalline silica. For instance, at Marikavalasa, there were 232 microliths and 5 neoliths and at Rampachodavaram the microliths numbered 453. The microlithic tool-types consist of fluted cores, blade blanks, blut backed blades, crescentic points, lunates, burins, borers, scrapers, simple points and occasionally trapeziums and triangles. Crested guiding ridge technique was no-where in evidence.

Pottery was again an invariable find at the sites under reference. But many times, the sherds were too small to be useful for reconstruction of full forms. A frequently represented form, however, was a globular vessel with angular neck and sharply flared rim. A complete specimen of lipped bowl of thick and coarse section, from Kasipatnam, requires special mention. The sherds are of a sandy or gritty fabric, but in most cases the sherds are too deeply corroded to give an idea of surface treatment. But reddish-brown slip occurs as patches on some of the sherds. A few of the sherds could have been of a greyish colour as well. It is difficult to make out whether the sherds were hand-modelled or made on wheel or turn-table. In the manufacture of certain of the sherds with relatively thin sections and even surfaces, the usage of wheel or turn-table is not ruled out.

It is now amply clear that there existed in north coastal Andhra Pradesh, a neolithic phase characterised by ground stone celts of doubtless Eastern Indian affiliation, invariably associated with microliths of crystalline and crypto-crystalline silica and a pottery of sandy or gritty fabric. The evidence for the present is available from Visakhapatnam, East Godavary and West Godavary Districts. But it is bound to repeat in Srikakulam District as well when properly explored. The sites are all situated in forest environment, on hill flanks or in valleys, often close to streams. None of the sites has shown even faint indications of a regular settlement deposit. The neoliths perforated stones, microliths and pottery are all found together on partly eroded gravelly red land surfaces. Querns or mullers, which are usually taken as indirect evidence for the consumption of cereal food have no where been found on these sites, except in doubtful context at Kasipatnam.

Circumstantial evidence indicates that the neolithic celts and pottery were intrusive elements into a Pre-existing mesolithic phase, because there exist in the region scores of sites yieldieg microliths alone. The nearest source of intrusion must be traced to Orissa, where particularly in Mayurbhanj District, neolithic sites of the kind have been noticed. Since the data are purely surface collections, it is hard to fix the antiquity of the neolithic sites on north coastal Andhra Pradesh. A chronological pointer in this connection may be the total absence of cord impressed pottery. Daojali Hading, Saraturu and Koldihwa, produced two pottery fabrics, a cord impressed ware and a plain red ware. Between the two fabrics the plain red ware is of a finer quality with relatively thin sections. At Daojali Hading, the two pottery fabrics occur to the extent of 95 per cent and 5 per cent respectively, while at Koldihwa, they make 69 per cent and 29 per cent. The relevant carbon-14 dates at Koldihwa are 5440±185 B.C. The cord impressed pottery persisted but limitedly as known from Koldihwa and comparable levels at Pandurajardhibi I and Chirand Ia—Chirand has two carbon-14 dates 1775±

155 B.C. and 1675±140 B.C. for the late levels of the phase, whereas at Koldihwa the end of the phase is dated 1440±120 B.C. The absence of cord impressed pottery might suggest for the Andhra Pradesh sites, a date closer to Pandurajardhibi I than to Daojali Hading. There are reasonable grounds to believe that the usage of microliths continued into early iron-age times. At Uppalapadu in East Godavary District, a few sherds of megalithic black-and-red ware also found on surface. Further, Cammiade recorded the find of microliths in funerary urns, similar to the common funerary urns of South India.

The present discoveries of a neolithic phase introduce a protohistoric cultural dichotomy in north coastal Andhra Pradesh. The cultural phase is different from the neolithic-chalcolithic culture known from excavation of Jami. Period I of Jami represents a neolithic-Chalcolithic culture, in an occupation deposit measuring a little over one metre in thickness. The ceramic products were dominated by hand-made wares which accounted for 77.9 per cent of the total. The pottery comprised (*a*) gritty ware, (*b*) burnished red ware, (*c*) graphite coated ware, (*d*) bright red ware, (*e*) black-and-red ware, (*f*) dull-red ware and (*g*) black ware; of which the last five were wheel-thrown wares. The other antiquities of the period consisted of a couple of bone points, a stone muller, a spherical bead of carnelian, two broken ground stone axes, a fragmentary copper ring and a small stone ball. The only house evidenced in excavation had circular plan, marked by closely spaced post-holes.

The differences in cultural content, between Jami and the other sites, may underline basic differences in the subsistence pursuits of the respective cultural phases, owing to situations in contrasting physical environments. Whereas the other localities are situated in forest clad upland zones with a severely undulating or broken terrain, of red ferruginous soil, Jami is a Low-land site, on the alluvial banks of the Gosthani river, situated where the flow channel becomes broad and shallow, after having crossed the outer spurs of the Eastern Ghats. The uplands with relatively poor and infertile soil offer severely restricted possibilities of agriculture than the alluvial low lands. These physiographic differences account for cultural differences. The differences in cultures would have been of the same kind as exist between the tribal socities and settled agriculturists.

The hilly and forest tract of north coastal Andhra Pradesh is an abode of primitive tribes. Over a score of these have been listed, the more populous among whom are the Savaras, Jatapus, Konda—Reddis, Koyas, Konda-Kapus, Valmikis and Yerukalas. These have developed an 'agro-forest' economy based on podu cultivation, animal hunt and gathering of forest products. Hill slopes are cleared of forest and used for raising food crops. The usual practice is mixed farming in which millets, cereals, pulses and oil seeds are sown together and allowed to grow. Continuous cultivation of the same patch of land is profitable for not more than three years, whereafter, the tribal group shifts to find another suitable patch to start cultivation anew. Shifting cultivation does not favour taking up residence at one spot for any considerable length of time. Hunting plays an important role in the economy. Wild pig, deer, hare, peacock and wild fowl are hunted with the help of bow and arrow. Substantial food material is obtained by collecting forest produce, such as leaves, yams, berries and fruits. Kondadoras, for instance, collect seven varieties of leaves, eight varieties of yams and seven varieties of nuts and berries to supplement their staple food. The tribal villages, which are very small, often consisting of 10 to 25 families, are usually situated on hill slopes or in hill saddles, but always close to streams.

The above generalised picture of tribal societies would explain the archaeological phenomena relating to Eastern Indian type of neolithic cultures at upland sites and contrasting with the life-pattern of settled agriculturists such as these of the neolithic—Chalcolithic phase of Jami. But the sort of generalised ethno-ecological analogy drawn here for purposes of interpreting the archaeological data pertaining to the neolithic phase, would be most fruitful, if demonstrable continuity of culture traits is available from the prehistoric to the ethnographic.

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5

CHALCOLITHIC BURIALS OF INAMGAON

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The discovery of the Jorwe culture in 1950 at the type site Jorwe (District Ahmednagar, Maharashtra) brought to light the material remains of an early farming community in Maharashtra (Sankalia and Deo, 1955). The culture was formerly dated to the middle of the first millennium B.C. of at the most in the first half of that millennium, but a series of recent radio-carbon determinations indicate that it has to be assigned to Circa 1400-1000 B.C.[1] Although a few sites of this culture have been excavated, albeit on a small scale, not much was known about these early colonizers of Maharashtra. We were therefore in search of a site of this culture with a view to excavating it on a largar scale. We were fortunate enough in discovering it at Inamgaon (District Poona, Maharashtra) which is situated on the right bank of river Ghod, a tributary of river Bhīmā, which in its turn belongs to the Krishṇa system. The site has been subjected to large scale excavations for the last nine seasons from 1968 onwards, and our excavations have brought to light very important evidence regarding the early farming communities in this region which flourished from Circa 1600-700 B.C.[2]

The ancient site at Inamgaon is spread over an area of about 50,000 sq. meters and is thus one of the largest chalcolithic sites in Maharashtra. It was first occupied by the people of the Mālwa culture who probably came from the Narmada valley in Central India around 1600 B.C. They flourished at the site for a couple of centuries till 1400 B.C. when the people of the Jorwe culture arrived on the scene, and in a short while completely dominated over their predecessors. The Jorwe culture in its early phase marks the most prosperous epoch at the site as is evident from the large rectangular houses, storage bins and pit silos, the diversionary embankment and the irrigation channel and the rich material equipment.[3] But the degeneration sets in around 1000 B.C. and succeeding culture which survived from Circa 1000-700 B.C. is but a jejune shadow of the Early Jorwe culture. This Late Jorwe culture has been identified for the first time at Inamgaon; it is characterised by small, flimsy round huts and coarse, black-on-red painted pottery. A few sites of this culture have now been discovered in the Bhīmā valley, but they are conspicuously absent in the Pravara-Gōdāvari valley—the cradle of the Jorwe culture—and also in the Tapi valley.

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All the three cultures which flourished at Inamgaon are chalcolithic in their outfit; they are characterised by a blade flake industry of chalcedony and agate, and copper artifacts which, however, were used on a restricted scale for the simple reason that the metal was scarce. All these cultures are noteworthy for their painted black-on-red pottery which is associated with a handmade coarse red/grey ware. The characteristic forms in the Jorwe ware are a carinated bowl and a spouted vessel. The pottery is turned on fast wheel and is of extremely fine fabric. It, however, becomes coarse in the Late Jorwe period when a new form—the channel spouted bowl—comes into vogue.

Another noteworthy feature of Jorwe culture—both Early and Late—is the mode of the disposal of the dead. Usually the adults were buried in an extened position (Pl. VI) whereas the children were accommodated in two coarse red/grey ware urns, placed horizontally mouth-to-mouth in a pit (Pl. VII). The adults and also the children were usually buried in a pit which was dug into the house floor and very rarely in the courtyard of the house. This was probably done because the people desired to have the departed soul within the precincts of their residence. And what is more, in the case of adults the portion below the ankle was purposely chopped off. This is indicative of the desire of the people that the dead body should not go away. However, this can also be explained as the fear of the dead person who usually was supposed to turn into a ghost, according to Frazer[4] the very idea underlying the burial in a pit below the house floor or a cairn was motivated by fear of the deceased ghost-soul, and those who were living always tried to control the actions of the dead.

Adults as well as children were usually buried in a north-south direction with the head towards north and the legs towards south. It is interesting to note in this connection that the Indians even today do not sleep with their legs towards south. In the burial pit we usually come across two vessels—a carinated bowl and a spouted vessel—both of the black-on-red painted variety. These, in all probability, must have contained food and water respectively for the dead. In some burials there were more than two vessels and in one extended burial of the Late Jorwe period we found fifteen pots. In sharp contrast to this, there were a few burials without any burial goods. This may perhaps the betoken of the economic condition of the family of the dead. In fact some people could not even afford two urns for their children, for there were two instances, one of the Early Jorwe and the other of the Late Jorwe period, wherein we found a single burial urn of the coarse red/grey ware, which contained the skeletal remains of a child. Of the two burials, the urn in one case was placed horizontally in the burial pit with its mouth towards south and there were two small Jorwe ware carinated bowls in the burial pit. In another burial, which belonged to the Late Jorwe period, the urn was placed vertically in the pit. A smaller example is also reported from Nevasa (District Ahmednagar, Maharashtra) which, however, is assigned to the Early Jorwe period.[5] These single urn burials, however, may not necessarily be indicative of the economic condition of the parents of the child but may also represent a different social group or clan which practiced this particular mode of burial.

But the personal ornaments on the dead body are certainly suggestive of the economic condition of the family of the dead. In an adult burial of the Late Jorwe period, a large crescentic ornament of copper was found near the neck of the skeleton whereas a child in a twin urn burial, also of the Late Jorwe period, was adorned with a necklace composed of twelve beads of copper and red jasper alternately.

A very unusual burial from Inamgaon belonging to the Late Jorwe period consisted of four urns (Pl. VIII). It actually represents two twin urn burials in one pit indicating thereby that two children in the same house died on one and the same day, and were therefore buried in two pairs of urns laid horizontally in a north south direction in one pit. The death of two children in the same house on the same day may perhaps be due to some epidemic like small-pox which was prevalent in India till very recently.

It appears that infants and children below ten were buried in twin urns whereas those in their teens were buried in more than two urns as their bodies could not be accommodated in two urns. A Late Jorwe burial at Inamgaon contained three red/grey ware urns; of these, two were placed mouth-to-mouth horizontally and the third one was placed in the north with its mouth joining the bottom of the central urn, the bottom being intentionally broken to accommodate the teenager. One such three urn burial belonging to the Early Jorwe period has been reported from Daimabad[6] and at Nevasa was unearthed a five urn burial.[7]

Among the Inamgaon burials the most important and unique is a four legged urn burial (Pl. IX) of the Late Jorwe period (Circa 1000 B.C.) which is the only one of its kind and has so far no parallels within the country. The urn is made of unbaked black clay having four legs and its southern face resembles a human body; the legs too resemble the human ones and over them are faint traces of a lower garment worn around the loins. More noteworthy is the abdomen and the things and one cannot but feel that is an anthropomorphic vessel, at least in its southern face.

The jar is 80 cm. (2 ft 7½ in.) high and 50 cm. (1 ft. 8 in.) wide and its maximum thickness is 3 cm. (1¼ in.). It is almost intact but for the large mouth fragment on the southern side which was anciently broken. The jar has a wide mouth with a featureless rim. On exposure it was found to contain an adult skeleton of a male of about 30 to 40 years old in a sitting posture with the knees folded up and the head turned down to simulate the foetus in the uterus. But after placing it, the knees probably turned sideways. All the bones and the legs including the toes are intact and the skull is in the best state of preservation in sharp contrast to the broken skulls so far found at Inamgaon. We have already noted that almost invariably the portion below the ankle is chopped off in the case of adults. The only exception was an Early Jorwe burial. This is second exception where the normal rule of the community does not seem to have been applied. The burial offerings were a spouted vessel and a carinated bowl, both of the painted Jorwe variety, which were found by the side of the dead. Of the two, the spouted vessel is painted with a boat design having long oars. It may be recalled that two such spouted vessels were recovered from an Early Jorwe burial (Pl. X). The boat design becomes significant in the light of the current Hindu belief that the departed soul has to cross waters in a ferry in the heaven.

The anthropomorphic jar resembles human effigy and hence we may not be far off the mark if we identify it with the person whose mortal remains is enshrined. But far more important is the problem of the status of the person and the mode of the burial. There is little doubt that the person who was accorded such an elaborate burial must have been a very important person in the community. He may even have been the leader or the ruling chief of the settlement. If we agree that the mortuary ritual varies directly with the status of the person within the living community, our identification of the person as the most important person in the chalcolithic settlement of his time gains strength. The elaborate burial indicates, what Binford[8] calls, the *social persona* of the deceased. But the possibility of his belonging to a different group or a clan which practiced a different mode of burial cannot be ruled out. There are some communities in India today such as the Lingayats of Karnatak and the Gir Gosavis of Central India who bury their dead in a tall urn in a sitting posture. Even the Gopals—the cattle keepers—around Inamgaon bury the dead in a sitting posture but in a pit and not in an urn.

The burial, as stated earlier, is unique in as much as it has no parallel in the country. Such four legged vessels, however, have been reported from Central Greece, Yugoslavia and Turkey where they are dated to the neolithic period. But the time lag between them and the Inamgaon example is too wide and no contact between the two can be postulated. Even morphologically, the European examples are different in that they are more zoomorphic rather than anthropomorphic, and are provided with a basket handle at the top.[9] The similarity between the two is too superficial and cannot be stretched too far.

Another interesting burial from Inamgaon consists of two four legged urns carefully placed in the pit which was dug in the courtyard of an Early Jorwe house (Pl. XI). The jars are of unbaked clay and have four squat, stumpy legs and bulging belly. Of the two, the jar to the north was slightly taller (45 cm. or 1 ft. 6 in. high), whereas the southern jar (30 cm. or 1 ft. high) was not complete but was intentionally cut into half vertically and only the portion on the left half is placed in the pit to the south, but adjoining the one in the north. The jars, however, did not contain any human skeletal remains but a flobular jar of the Jorwe ware, covered with a knobbed lid, was found in the northern jar. This jar also did not contain any human bones but below it was found the pelvic bone of *Bos*. Although no human bones were found in any of the jars, we are tempted to identify the jars as representing a symbolic burial for the simple reason that the clay jars, one complete and the other half, so carefully placed in a specially dug pit could not have served any other purpose. Our identification gains further strength from the Late Jorwe burial already described. It is not unlikely that this symbolic burial was that of a person who ranked very high in the social hierarchy of his time. In fact we can take him to be the chieftain of the settlement or even the priest-chief as a very elaborate but different type of burial was accorded to him. Could it be possible that he died an unnatural death or that he was killed in a battle with some neighbouring tribe and the body could not be retrieved? Only this would explain the absence of skeletal remains and hence the symbolic burial.

Both the four legged jar burials described above were found in close proximity to each other, but they are removed from each other in point of time, for they are separated stratigraphically by a 25 cm. (10 in.) thick layer. The symbolic burial belongs to the end phase of the Early Jorwe period and can therefore be dated to about 1100 B.C. whereas the one containing the human skeleton can be assigned to the beginning of the Late Jorwe period (Circa 1000 B.C.). This is suggestive of the relationship between the two persons who were buried in an almost similar fashion. If the time gap between the two is estimated to be about 50 years we feel that we have here the burials of a grandson and his grandfather, or even of a father and his son. Even the child burial which was found by the side of the four legged jar burial of the Late Jorwe period belonged to the same family, for both are in the same house floor. The child, a girl of two years, was also given appropriate burial; it was adorned with a necklace of beads of copper and jasper.

Although the burials described in the preceding pages are a noteworthy feature of the Jorwe culture in Maharashtra, they do not appear to be a characteristic of this culture, for they have not so far been found at some of the Jorwe sites, more especially in the Tapi valley. Thus, they are conspicuously absent at Prakash (District Dhulia) which is a very extensive site of the Jorwe culture[10] whereas the burials encountered at Tekwada (District Jalgaon) are typologically of a different character.[11] Here the cemetary is located opposite the chalcolithic settlement at Bahal (District Jalgaon) where not a single burial was found within the habitation area, but across the river at Tekwada were discovered four burials. The very concept of locating the cemetery away from the habitation is undoubtedly novel and perhaps constitutes the only example of its kind except the Indus civilization sites where, as at Harappa and Kalibangan, the cemetery was situated away from the residential zone. In the Narmada valley the Jorwe culture becomes predominent in the last two cultural phases at Navdatoli (District Nimar, Madhya Pradesh), but no such burials were found in the excavations at the site. This is indicative of the different ethnic groups constituting the Jorwe culture which were practising different mode of disposal of the dead. We must agree with Binford[12] who states that, "Change or variability in mortuary practice ... is commonly attributed to change or variability in beliefs. Although we are rarely enlightened as to the causes of change in belief, it would appear from the cumulative experience of man in coping with his environment."

The twin urn burials, which are so characteristic of the Jorwe culture, are reported from a few neolithic sites in the southern Deccan more particularly in the upper reaches of the Krishṇa Valley. Although the first farmers of Karnatak practised the burial of the dead from a very early period (Circa 2000 B.C.) the twin urn burials begin to occur there in the third phase of the Neolithic period which Allchins have dated to Circa 1400-1050 B.C.[13] They are supposed to occur there because of the influence of the Jorwe culture.

No burials have so far been reported from any site of the Mālwa culture (Circa 1600-1200 B.C.) which flourished in the western parts of Madhya Pradesh from Circa 1700-1200 B.C. Even in Maharashtra burials were not so far discovered in the Mālwa levels save a solitary example from Daimabad. But in the course of our excavation at Inamgaon we have discovered many burials in the levels of the Mālwa culture which, as already stated, flourished at the site from Circa 1600-1400 B.C. They are of the twin urn variety enshrining the mortal remains of children below the house floor. The burial urns were of the coarse red/grey handmade ware and of the Mālwa ware as well and they were placed mouth-to-mouth horizontally in the pit in the north-south direction. At Daimabad, which also is a very extensive chalcolithic site, some of the Mālwa culture people buried the adult in the extended posture.[14] There should be little doubt that they adopted this method from their neolithic predecessors at the site.

The twin urn burials consititute a very important feature of the Jorwe culture which have no parallels within the country. The only parallel we can cite is that from Turkey where at Tazilikaya were found a number of pots (*pithoi*) laid in pairs, mouth-to-mouth, and within these were several smaller vessels containing cremation ashes.[15] At Alishar Huyuk and Boghaz Koi, numerous inhumations were found in which the body was laid in a pair of *pithoi* placed mouth-to-mouth.[16] However, the Indian and the Antolian examples are far removed from each other spatially and temporally, and it is therefore difficult to postulate Anatolian influence on the Jorwe burials. The origin of the twin urn burial type is therefore difficult to explain. It reminds us of the famous verse of Sri Śankarāchārya :

Punarapi jananam, punarapi maraṇam
Punarapi jananī jaṭharē śayanaṁ

In this connection, it may be recalled that jar is a symbol of fertility and regeneration and in the *Vājasaneyī Saṁhitā* of *Yajurveda* (19.87) it has been compared with womb. In the light of this, the evidence from *Ṛigveda* becomes significant as it describes the symbolism of two urns (Rv. I, 164, 33), one of which is a male and the other feamle.[17] It is not unlikely that the idea behind the twin urn burial was perhaps the same.

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6

SOCIO-ECONOMIC LIFE IN PROTOHISTORIC KARNATAKA

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Karnataka, situated in the middle-West of South India forms the southern half of Deccan. South India has been the home of Early Man from the very beginning of human history as were the plains of the Indus, the Gangetic Valley and the region along the Narmadā and the Gōdāvari. But in course of time, *i.e.*, in the transitional period, marking the change from the prehistoric to the historical times, we find that the northern regions stole a march over the south. Probably the physiography like the presence of the perennial rivers, the huge quantities of fertile alluvial silt-spread and direct culture intrusions and contacts from the north-West were responsible for such rapid progress in the north. However, the south of the Indian peninsula did not completely lag behind. It did receive the cultural impetuses either from the northern region or the southeast from across the seas and made progress in its own tardy way. This crucial period in its history, the protohistoric period, corresponding the Iron Age (first millennium B.C.), has remained more or less *incognito*. It is only in recent decades that the archaeologists have started tackling this problem in earnestness. The limited evidence that has been gathered by them, no doubt, leaves many gaps in our knowledge of the life of these people.

The evidence is mainly based on the study of a unique burials culture, known to the archaeologists as the megalithic culture. Unfortunately, very few living sites of these people have been identified and studied, while thousands of their burial sites have been explored from every nook and corner of Karnataka and quite a number of them have been investigated.[1] Hence as almost the whole of our evidence is culled out from the remains found in such burials, we know very little about the mosaic of the life style of these people. However, some of their living sites like Brahmagiri,[2] Sanganakal,[3] Maski,[4] Hallur,[5] Piklihal[6] etc., in Karnataka have helped us to formulate a provisional, though sketchy, account of the socio-economic life of the people. But here again the study of these sites have been not exhaustive and much detailed investigation is yet a *desideratum*.

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These people seem to have lived in villages consisting of sizable population with a bias for urban life. An estimate of the size of the population is indicated by the mass of organised labour required for working, transporting and hoisting massive blocks of stone in the construction of their burial vaults, some of which often weighed several tons; or the construction of large irrigation tank bunds. The large size of the population is further attested by the extensive burial grounds with numerous graves, many of them often containing remains of twenty or more individuals.[7] They probably lived in huts with thatched or reed roofs supported on wooden posts; there is no evidence of stone or brick structures for residential purposes. However, it may not be impertinent to point out here that one author excavating an iron age site in Karimnagar region of Andhra Pradesh[8] claims, evidently wrongly, that an extensive structure—a large quadrangular structure of burnt bricks measuring 131×1000 feet with an entrance measuring 10×6 feet, pierced in to the northern wall, belongs to this period. That structure certainly is of the succeding early historical or Satavāhana period.

The basis of their economy was agriculture, helped by irrigation.[9] They revolutionised the economic basis of the society by improved methods of agriculture; the tank irrigation system was definitely introduced into South India by these people which has lasted for more than 2,500 years till the present day. While unproductive foot-hill rocky lands were utilised for their grave yards, the fertile plains lower down were preserved for cultivation.

Rice, an essentially irrigated crop was their staple food as evidenced by the occurrence of paddy grains and husk found in copper or earthen vessels from their burials.[10] Recent evidence from Hallur definitely indicates that Ragi was known and cultivated by these folk.[11] Similar evidence for use of that grain is available from Coorg sites.[12]

It is argued that sugarcane and cocoanut were introduced into South India during this period by the Austronesian speaking people. It may also be noted here that considerable quantities of agricultural implements have been found from these megalithic sites; the occurrence of a Roman *coulter* from Brahmagiri, plough shares from Nagpur and Hyderabad region and a number of small hoes from Adichanallur, Junapani and other sites are clear evidence of improved methods of agriculture. Long celts and chisels might have been used as tips for wooden ploughs, sickles for harvesting, bill hooks for cutting trees and clearing forests for cultivation. A variety of shovels, spades, hatchets, axes and crow bars are among the other equipment for agriculture.

Some of the crops like rice and sugarcane are irrigated crops; besides the prevalence of tank irrigation, it is suggested that lift irrigation was in vogue towards the end of this period.[13]

Hunting naturally augmented their food supply as the equipment for hunting like arrow-beads, spears, javelins would suggest. Sling was another hunting equipment. Fishing and fowling were known to them. Besides, a variety of domesticated animals like cattle, sheep, goat and fowl provided meat.[14] Horse was widely used by them as evidenced by the occurrence of numerous bridle-pits and saddle pits in these graves; sometimes even the skeletal remains of the horses have also been found. The milk of the cows, sheep and goats provided nourishing diet for the children, the aged and the sick, while poultry yielded eggs. A variety of millets and leguminous grains known in earlier chalcolithic times might have also been used by them.

These people had developed a variety of industries; their products might have been traded with far off countries, even across the seas, particularly with the Mediterranean world as is indicated by literary evidences from the closing and immediately succeding periods. Among these industries may be noted pot-making, bead-production, manufacture of bangles, metal working besides stone-dressing.

Pottery, a hall mark of settled life is found in these graves and the living sites in exuberance. Most of the pottery is wheel-turned, polished with an applied slip and often decorated with incised designs and rarely painted. The best known of this ceramic group is the ubiquitous black-and-red ware so called because of the oxidised red or brown surface on the major portion of the exterior and the carbonised black surface on the interior. It was often scratched, after firing, with graffiti marks which are considered as indicating ownership or potter's identity. The pottery was well burnt. A second variety was the all-black polished ware; these two varieties generally served as table ware. A third dominant variety was the red ware not so finely produced, to serve as the kitchen ware consisting of cooking vessels, storage and water pitchers etc. A survey of the methods of manufacture, decoration and range of shapes would suggest the great skill of the potter in the exercise of his profession. He produced fine thin vessels to serve as table-ware for eating and drinking purposes; cooking utensils were of thicker sections sometimes with intentionally roughened bases either to be placed on the ovens or kept on the ground. He also produced large sized burial urns, sarcophagi and huge storage jars. The wide range of shapes and appliances exhibits proficiency in his art.[15]

He also produced a variety of personal decorative ornaments like beads, bangles and jewellery. The beads are manufactured from gold, silver and copper, different varieties of semi precious stones and other materials like carnelian, jasper, agate, onyx, serpentine, steatite, lapis lazuli, milky or clear, quartz, amethyst etc., glass, wax, lacquer, terracotta, stalagmite, shale, shell, ivory and bone. The shapes and modes of decoration of these beads also vary considerably, thus emphasising not only that these folk possessed fairly advanced culture wherein elaborate steps were taken to decorate their mortal bodies but also underline that they mastered the techniqes of delicately cutting different types of stones of varied hardness into small and required shapes, boring holes through them, polish them to different degrees of fineness and further decorate them with etching of the carnelian specimens or carving grooves over them to produce some designs or collared edges.

The bangles were usually cut and carved out of shell but rarely those of copper and terracotta were also found. The rings, mostly of copper were worn on fingers but sometimes might have been used on toes or formed part of necklaces. The ear ornaments were either of terracotta in which case they were very large-sized and heavy, or were made of the apex of the shells, circular or convex discs with a hole in the centre, incised with a variety of designs. The diadems or head-bands were not frequently found, so far found only from Adichanallur; some were made of bronze and given a gold coating but majority were made of gold. A variety of toys—terracotta discs used as hop-scotch pieces resembling spindle whorls, figurines, gamesmen and miniature pots. On the analogy of the customs of the tribals like the Todas, who till recently practised megalithism, we can say bison fights were another means of entertainment, which were probably arranged on ceremonial occasions. Hunting was yet another method of entertainment. Probably they also practised group dance, singing while sharing food and drink on occasions of community festivities.[16]

Thus from the available scanty evidence, it is possible to draw a tentative picture of the socio-economic life of the Iron Age of the Protohistoric Karnataka. Of course the author is aware of the fact that this is a very sketchy account many a time based on indirect or incomplete evidence. Further, there must have been many other aspects of the life of the people which archaeology by its very nature cannot bring to light. However, a conscious attempt is made here to delineate the socio-economic life of the Protohistoric Karnataka.

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7

A CRITICAL STUDY OF THE TECHNICAL INVESTIGATION MADE ON NBP

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We have seen that the concept of standard NBP with a distinctive lustrous surface finish needs a revision. This glossy brilliance has also raised several enquiries as to the actual method of the production of this ware. The views of Sana Ullah, Archaeological Chemist in 1946, as quoted by Wheeler in 1947-48, P.S. Rawson in 1953, B.B. Lal in 1955-56 and 1959-60, Miss Bimson quoted by Wheeler in 1959, K.T.M. Hegde in 1962, 1966 and 1970, H.C. Bhardwaj in 1969 and ours in 1971 who have technically examined the ware are discussed below :

Sana Ullah[1] reporting twice said that the black coating contains about 13 per cent ferrous oxide which is responsible for the black shade. The original slip was a highly ferruginous body and was applied to the surface of the pot before firing. The presence of ferrous-lime and ferrous-magnesia which being of low fusibility bring about the fusion of the black film during burning and also account for high lustre of the specimens. He says that although Lucas[2] has tried to prove that black colour of the pottery is due only to carbon, yet his experiments leave no doubt that ferrous silicate is also produced. Thus he holds the possibility of the deposition of carbon and some tarry matter in the pores to enhance its black colour.

The above observation of Sana Ullah clearly point out that he has examined highly lustrus sherds of only black colour, *i.e.* one of the colours found in the big lot of NBP.

In 1947-48 on the excavation report of Brahmagiri and Chandravalli published in *Ancient India* No. 4, Wheeler said that "The black polished ware, distinctive of the pit-circles seems to have been fired at a low temperature as it weathers much sooner than the red. This black ware of the megalithic sites of South India and the Deccan has been compared to the typical black polished ware well known from Northern Indian sites,[3] but it should be stressed that the two wares are easily distinguishable. The northern black ware has a fine fabric, is very well fired, has a polish giving almost a metallic lustre, and is shaped on a fast wheel, while the black megalithic ware is coarser, less well fired, usually not so highly polished and is normally potted on a slow wheel. This he said on the basis of Archaeological Chemist's Note.[4]

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P.S. Rawson[5] observed that "the grey-bodied wares can likewise be accounted for firing under special reducing conditions. It is probable that grey wares of the Ganges valley sites were fired in open saggers stacked one above the other in the kiln. The ware in saggers closed by a sagger above them would fire in a fully reducing atmosphere, whilst the ware in the top sagger, which would be open, would fire in an oxidizing atmosphere and thus come from the kiln red. The hypothesis is borne out by the presence on the Ganges sites of a small propotion of red ware of the same form and fabric as grey. In view of the close association on the sites of Northern Black Polished Ware with the grey wares, and what was proposed above concerning the method of applying haematite dressing, the Northern Black Polished Ware can be explained as a haematite dressed ware, sagger-fired."

It appears that Rawson has not only examined the black variety of the standard NBP but also red variety of the same form and fabric. He said that they were fired under reducing condition in open saggers (refactory clay boxes) kept one above the other. Thus the pots on the top are fired in the oxidising condition and thus turn red. The remaining pots below turn grey. This explains the small number of red coloured NBP which was also got along with the large number of grey or black NBP. But both these varieties of NBP also come under our Fabric A, *i.e.* under the standard concept of NBP.

B.B. Lal on the basis of his observations concluded twice[6] that "The lustre on the surface of the ware, therefore, appears to be composed of some easily fusible material, possibly of organic origin, which undergoes incipient fusion at a low heat. The layer just below the uppermost film was, in most cases, noticed to be buff or orange-yellow. The blackening of the upper-most surface may, therefore, be due to some sort of post-firing treatment, in which the pottery, still hot from the kiln, was coated with some liquid such as an oil, juice of some plant or a similar organic concoction. He further states that the exact conditions of firing and the nature of the ferruginous material employed in its maufacture still remained elusive."

Lal, it appears has examined mostly NBP sherds coming under the fold of our Fabric C in which below the shinning black slip there is always a red or buff or orange-yellow matt surface. These types of NBP have mostly been found at Hastināpura. However, his observations conclude that black lustre of this type of NBP may have been resulted by some type of post-firing treatment in which the hot pottery was coated with some organic liquid.

According to the observation of Miss Bimson[7] of the British Museum Laboratory, NBP was not subjected to burnishing as thought by the Archaeological Chemist in India.[8] According to her 'the unfired pots were dipped in a suspension of ferruginous inorganic material probably resembling a red earth, and that, after firing to a temperature of 800°C, the kiln was sealed so that the pots cooled in a reducing atmosphere'. She further points out several differences between NBP and Greek black ware. 'When held near the magnet, Greek black is attracted to the magnet, whereas Indian black is relatively non-magnetic. The surface of the NBP ware differs from Greek black gloss in its behaviour when fired. The latter is consistently stable at temperature of 1000°C, whereas the samples of the NBP ware have shown variations in their resistance to such temperature.'

Miss. Binson's view that the pots were dipped in a suspension of ferruginous inorganic material contradict the view of Lal[9] who said that 'the lustre on the surface of the ware appears to be composed of some easily-fusible material, possibly of organic origin, which undergoes incipient fusion at a low heat'. The precise nature of the surface treatment also remains unsolved in her study.

According to K.T.M. Hegde expressed in 1962,[10] 1966[11] and again in 1970,[12] "An analytical study of the lustrous coal black slip of the ware indicates a very high percentage of sodium and iron in the slip. When a very small fragment of the slip was held near a magnet it was attracted by the magnet, while a similar fragment of the body was found to be relatively less magnetic......... On the surface of the ware is, hence, produced a thin layer of black magnetic oxide or iron which is responsible for the black colour of the slip." "In the production of NBP ware slip, clay suspension was quite likely treated with a clear solution of 'Sajjimatti'. On heating the slipped pottery to 700°C the sodium components are decomposed to soda which fluxes the clay to form complex silicates which on cooling impart the glaze, like glass, on the surface of the ware". He also said that, "From the crazing tendency of the slip, resulting from the higher coefficient of thermal expansion than the body, it was inferred that the surface dressing was applied on baked clay".

As regards magnetic quality of the NBP slip, the analysis of Hegde is at variance with that of Miss. Bimson. According to him the NBP slip is magnetic. He has hinted that the pots were double fired as according to him the surface dressing was applied on baked clay. The frequent peeling of the slip and the defects like crazing which we have observed on some of the NBP sherds of Prahlādpur[13] do suggest that the pots may have been fired twice. According to Miss. Richter[14] the Athenian vases were also fired under oxidizing, reducing and again reoxidizing conditions to achieve the lustrous surface. B.K. Thapar[15] also hints that the peeling of the slip indicates that the pots may have been fired more than once. But his analysis was again confined to only standard variety of NBP having black colour and lustrous body.

The analysis of the Archaeological Laboratory of the Banaras Hindu University carried out by H.C. Bhardwaj,[16] suggest that "black colour of the slip is materially on account of carbon and our experiences and observations do not substantiate the presence of magnetite or ferrous silicate. The views of Lal mentioning the use of organic material which will deposit carbon on charring need attention. However, in view of the presence of a detachable clayey slip, post-firing application of organic liquids looks doubtful. This slip might have been obtained by the application of

TABLE

Preliminary Tests for Glazed or Enamel Ware, Painted Ware, Graphite Coated Ware and NBP from Rajghat.

Material Tested	*Hardness*	*Effect of*				*Appearance under a magnifying lens*	*Remarks*
		Water	*Kerosine oil*	*Hydrofluoric acid*	*Blast burner Flame*		
Vitreous Glaze or Enamel	Not scratched by knife	Impervious	No action	Soluble	Softens	Smooth, glossy and uniform surface.	
Ordinary Painted Ware	Scratched by knife	Impervious	No action	Soluble	Burns rapidly	Smooth and glossy surface which is not very even.	
Graphite Coated Ware	Scratched by knife	Shows permeability to water after long standing	No action	No action	Gets oxidised with prolonged heating	Dull and shining black patches with not very uniform surface.	The black colour stains the fingers on rubbing
NBP from Rājghāṭ	Scratched by knife	Impervious	No action	Soluble & the polish comes off in thin flakes	Burns easily and the black colour changes to grey dull red	Exhibits black colour with a metallic sheen and with a more uniform surface than graphite coated wares but not so smooth as in the case of vitreous glazes and enamels.	

well levigated emulsion of refined clay and organic liquids (say plant juices) over the dried pots. After the slip was dry, the pots were fired under reducing condition. The organic matter in the slip carbonized, without burning out, resulting in a uniform lustrous black surface."

Let it be stated in the beginning that in this case also only black and lustrous variety of NBP has been examined which Bhardwaj himself admits in his note. His view that black colour of the slip is due to carbon more or less tallies with the views of Sana Ullah and B.B. Lal who also mean that the presence of carbon in one way or other was responsible for the black colour of the pots. Lucas[17] also felt that black colour on the pottery is due to carbon. But Bhardwaj's experiments do not substantiate the presence of ferrous silicate and magnetite in the slip as found by Sana Ullah and Hedge respectively. Hegde claims that due to the detachable nature of the slip the pots were fired more than once also looks doubtful to Bhardwaj.

Our[18] investigation carried out in the laboratory of the Department of Silicate Technology, Banaras Hindu University in 1971 is reproduced below :

For a comparative study, a glazed ware, an ordinary black painted ware, graphite coated terracotta ware and NBP sherds from Rājghāṭ were subjected to preliminary testing as given in the table below :

Inferences

1. Hardness is an effect of temperature and structure of the body.
2. All these wares are imprevious to water.
3. Ordinary painted were alone is acted upon by kerosene showing that other types under investigation do not contain any material soluble in kerosine.
4. Hydrofluoric acid readily acts on vitreous glazed were and NBP sherds. In the latter case the slip being carbonaceous is not acted upon by hydrofluoric acid but thin flakes of the slip get detached or separated from the body clay.
5. A vitreous glaze or enamel is quite different both in composition and structure and also in appearance as compared with the NBP sherds.

Effect of Heat

The NBP sherds when subjected to heating in an electric furnace for 1000°C lost all their black colour and polish and become red. The surface also showed in some sherds that the polish that was given to the ware did contain some fusible material like borax etc. In some of the fired pieces, the surface showed some slightly coloured surface indicating the presence of some colouring matallic oxide like copper or iron which may have been added in a very small proportion. In some sherds, the surface showed bloating of the body showing that some very fusible flux got into it as an impurity and on the subsequent firing, it fused into a slag giving bloating to the pieces.

Reproduction of NBP

Finely levigated clay from Vārāṇasī Water Works was taken. The wares were made out of it. After making the pieces on the potter's wheel, the pots were fattled, cleaned and dried. The dried pots were given a smear or dip containing a temperature fusible clay with little soda or borax and a little portion of colouring metallic oxide *e.g.* Fe or Cu or even both. After this the 'Kabiz'[19] was applied over the pots. The wares after the application of 'Kabiz' were fired in big earthen pots containing rice husk. The mouth of the pots were closed so as to ensure complete reducing condition and the pots were fired in ordinary potter's kiln. After firing the wares got the black shining appearance similar to that of NBP.

Conclusion

The black polish or slip is the result of : (1) reducing fire, (2) the fineness of the 'Kabiz' or slip and the iron oxide added to it, and (3) the degree of heat *i.e.* the temperature. While the first two conditions are essential for the black polish the temperature determines whether it would be matt, glossy or glossy with metallic sheen. It also determines the hardness of the ware. Thus the ware which has received the lowest temperature is soft and has a matt surface. The ware which has received a higher temperature is glossy and hard but the ware which has received the highest fire is the hardest and has a mettalic sheen on it. The degree of heat given to the ware can also be broadly determined from the sound it gives when struck. Those pieces having a metallic sheen give a sharp note. Those pieces having a matt appearance give a comparatively softer note.

The views expressed by all these scholars on the investigations carried out by them, are at variance with each other. Secondly all the experiments were confined only to one variety of NBP having black colour and lustrous finish. This concept of standard NBP has now changed. There are other fabrics also which come under the fold of NBP. Unless some work on other varieties of NBP and more comprehensive work on the standard type or top-graded or our Fabric[20] A is done, the picture on the whole is more or less incomplete.

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2. This observation of A. Lucas is based on the examination of Ancient Egyption black-topped pottery and not NBP.
3. K. de B. Codrington in *Man*, 1930, No. 139 (p. 190).
4. This note has been quoted in *Ancient India*, No. 4, p. 208. The Archaeological Chemist report on the difference is as follows : "After turning on the wheel, the pots of the NBP ware appear to have been subjected to elaborate rubbing and burnishing, and then coated with a finely levigated, highly ferruginous clay and again burnished to smoothen the surface. The pots were then fired under reducing conditions to a temperature producing an incipient fusion of the slip. This accounts for the exceptional hardness lustre of the pots. In the Megalithic black

ware (Southern Black Polished Ware) the pots were not finished with so much care. A thin wash of ocherous clay seems to have been applied, and the pots fired in a reducing atmosphere at a low temperature than in the case of the Northern Black Polished Ware. The slip in the latter stands out as a distinct layer, whereas in the former it is notably less distinct."

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6. *I.A.*, 1955–56, pp. 56-57 and *I.A.*, 1959-60, pp. 120-21.
7. Her view has been quoted by Wheeler in *Early India and Pakistan*, London, 1959, pp. 30 and 180 and also in *Charsada*, A Metropolis of the *North West Frontier*, London, 1962, p. 41.
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14. Richter, G.M.A. in *Journal British School at Athens* XLVI (1951), pp. 143-50.
15. Thapar, B.K. in *Ancient India*, Nos. 10 and 11, p. 51.
16. Bhardwaj, H.C., in *Potteries in Ancient India*, Patna, 1969, pp. 188-92.
17. Although Lucas did not examine NBP, his above observation regarding black colour is based on the experiment which he conducted on Egyptian (including Nubian) black-topped pottery. This black-topped pottery, though early in date, is similar to our black-and-red ware of India. The technique adopted in giving two colour-effect (black and red) and in the manufacture of this black-topped ware was studied also several scholars like Flinders Petric, W.C. Pollard, and Gordon Childe. It will be partinent here to give their opinion on the black colour of the pottery.

    Flinders Petric (W.M.F. Petric, *Arts and Crafts*, p. 130) thinks that black colour is due to black oxide of iron while Pollard (W.B. Pollard, *Cairo Science Journal*, IV (1912), pp. 72-75) is of the view that black colour could not be due to ferrous oxide. Gordon Childe (*Ancient Egyptian Materials and Industsies*, pp. 377-81) said that attribution of black colour in pottery including Egyptian ware, only due to carbon is not justified. Lucas, however, conducted further work and in support of his views above, further said that the pottery made from grey-burnished clay, without any coating of red-ochre, where there was no red oxide of iron to be reduced might be blackened by carbon in a manner similar to that of the Egyptian ware. The black-and-red ware of India has been analysed by Plenderleith (H.J. Plenderleith, 1930, *Man*, Vol. XXX, October No. 138) and G.G. Majumdar of Deccan College, but does not need a detail treatment as they have no relevance to the present context.
18. The work was done by the present author under the guidance and help of Prof. H.N. Roy, Dr. D.K. Patwardhan and Dr. V.C. Joshi, members of the Department of Silicate Technology, B.H.U. The author is grateful to all of them.
19. Recipe of 'Kabiz' or slip.

Kabiz	...	1 seer
Bark of green mango trees	...	6 chataks
Soda-ash	...	2 tolas
Green Babul tree leaves	...	1 tola
Kethha	...	2 tolas

The above ingredients were mixed with suitable amount of water and pounded together and left for a couple of days. They were again pounded and mixed throughly with some more water. The pounded bark and the leaves are carefully removed and the whole 'Kabiz' slurry was seived and was ready for use.

20. The pottery coming under the fold of NBP was divided into Monochrome and Bichrome NBP. Monochrome NBP was characterized by five fabrics, labelled for the sake of convenience, as Fabric A to E. The distinctive features of each fabric have been published elsewhere in detail and need not be retraversed here. Suffice it to mention that among these, Fabric A, which is easily distinguishable from the other fabrics due to its highly lustrous black surface (standard or top graded NBP), has only been examined by the above investigators including myself.

8

RESTORATION : A CRITICAL VIEW

N. HARINARAYANA*

Restoration, unlike preservation, has always proved to be a matter of opinion, of doubt and debate. Everyone quickly agrees to matters of preservation. When it comes to restoration—what Helmut Ruhemann, in the case of paintings, defines as "to preserve and to show its best advantage every particle remaining of a painting", people begin to question as to what is meant by "to show to its best advantage". How much of the old damage is to be removed or set right and how much of the new reconstruction to be put in? People get exercised over loss of "that antique look" and would not mind the dirt and discoloration of ages in a painting or the disfigurement of a corrosion crust in a bronze being allowed to remain as they feel that these accretions of time give a semblance of antiquity. The same is true in the case of monuments and historical buildings.

Talking of monuments, John Ruskin, the famous English art critic and essayist of the last century, was emphatic that "it is *impossible* as impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture". He almost expressed a certain contentment with retaining the old damaged structure ; "There was yet in the old some life, some mysterious suggestion of what it had been and of what it had lost; some sweetness in the gentle lines which rain and sun had wrought. There can be none in the brute hardness of the new carving". He is even more severe. "Do not let us talk then of restoration. The thing is a lie from begining to end".

That is an extreme position, but possibly motivated by the fact that most who are engaged in restoration are so keen on showing their skill or ingenuity and not respecting the integrity and originality of the artist. John Ruskin was a fighter for his cause and did not want to mince words about what he felt strongly. Helmut Ruhemann, A picture restorer all his life, wedded to his work but flexible enough to be open to new scientific ideas and materials from conservation, was firm, if not strident, about the aim of restoration,

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"It is equally erroneous to think that because a picture is old, dirt or darkened varnish must be left on it in order not to destroy the appearance of age".

This sort of position, of "for" and "against" restoration, is taken in the case of other objects as well. Bronzes, removed from inside the earth, are covered with crusts of corrosion products which are not always beautiful to look at. Patina, as scientifically understood, is different, it is smooth, shinning, even and shows no signs of active corrosion. Such formation is however quite rare. Most of the corrosion products are mixed up with siliceous products and are spread over the bronze surface disfiguring it and even hiding details. Sometimes they harbour active centres of continuing corrosion. Many art connoisseurs would have this left undisturbed altogether. Similarly stone objects will be found broken, truely aimed, and it is a moot point whether a damaged nose or palm is to be set right or left alone. There are often cases of other objects like pottery or porcelain found in fragments. What is to be done about these? Should the lacuane be filled to give continuity or left alone to reveal gaping discontinuities in the surface? In the case of monuments and buildings, open to the elements and their destructive action, the differences of opinion are even greater.

What Ruhemann said in regard to painting restoration neatly sums up the general tenor of restoration : "To preserve and to show to its best advantage every particle remaining of a painting". Quite often, restoration involves piecing together the fragments of an object to form a meaningful entity. Here and there, pieces may be missing. In one case of the hilt of a sword mentioned by Plenderleith only a few pieces were available and they were set in the Perspex at points where they might have been most possible present. Torn textiles may pose similar problems. Restoration means putting them all together so that the sembance and possible shape of the original object emerges. It is here that the conservator's skill and knowledge and feel for aesthetic form comes in.

There are no hard and fast rules governing restoration. Problems posed by each object have to be tackled on their own merits. Still restoration is subject to certain guiding principles which ought to be born in mind. The first of them is what the Murray Pease Report characterises as "unswerving respect for the integrity of works of art". A work of art is above everything a product of its time—in its materials, its form and its finish. The artist, named or unnamed, the workman who fashioned it, is revealed by it so long as it is essentially unchanged. The moment something is done to improve, it even with the best of intentions and the truest devotion, it is no longer the same entity as was the original. Its character is lost; its integrity destroyed. So all restoration must proceed from this first reservation that nothing will be done that is not absolutely necessary that as much of the old fragments as possible will be utilised in restoring the object, that nothing will be thrown away as useless or redundant. Whatever are the characteristics of the ancient object should be retained in the restoration.

The second principle is to use materials which are nearly thesame as those of which the object is made. For instance, when filling worm holes in a wood carving, a putty made of saw dust of the same wood and a neutral adhesive like "fevicol" is better than any commercial putty. If the string of a bow is cut and gone, replace it with a similar string, not with a metallic wire. In old buildings, where the plastering has fallen off, the mortar used in restoration should be, as far as is possible, made of the same material in the same composition as of old. Old canvas pieces and old paper bits, otherwise useless, come in handy for restoring old paintings, or old paper manuscripts.

In case similar materials are not available, use materials that are totally different and easily changeable. An instructive example is the restoration of pottery in which the missing portions are filled in with Plaster of Paris. After the plaster is applied and dries up, it may be coated with water colour to match it with the rest of the surface. No attempt is made to make the replaced portions identical with the surrounding original parts. The restoration is only for toning down glaring discontinuites in the object, not for remaking it faithfully. The reason for not attempting a faithful reproduction is succinctly put by Ruskin as follows : "That spirit which is given only by the hand and eye of the workman, can never be recalled".

This is in fact the reason for the third injunction in restoration; do not try to built up the lost parts exactly as you think they should have looked. Whatever you do will be still conjectural and it will be guess work. It will be your artistic achievement, an uncalled for imposition of your artistic talent upon that of the artist of an earlier time. Somehow this juxtaposition of two styles makes for an incongrous combination and draws down invariably the wrath of the art connoisseurs. This is most obvious in stone sculptures with missing parts and paintings with patches of pigment layer gone. In case any restoration becomes absolutely necessary so as to soften the harsh impression of an overmutilated object, the treatment is done in such a way that it remains reversibles; so that if better materials or methods are available at a later date, the process could be reversed.

The choice of materials used in restoration is another important consideration. They should be such as would be inert, neutral, stable and not likely to react with the materials of the object. An obvious example is plaster of paris used in pottery restoration. An example of materials that are fairly inert to start with, but decompose later on and affect the object is glue which was used previously in relining of paintings and even in mending of tears in paper. Glue has a way of decomposing and staining the surface. A similar material, not recommended for permanent restoration, is plastic sticking tape such as "Sellotape". It also stains and after a time, gets peeled off the surface restored. In the Laboratory at Nancy, France Lanord was using a very good combination of inert materials for repairing and reconstructing fragments of Merovingian bronzes. He was using fibre glass and polyvinyl acetate, the former as a strenthening agent and the latter as adhesive. He avoided the earlier methods of soldering or welding because these tend to create weak lines at the joints, where corrosion is accelerated.

A few examples of good restoration gleaned from conservation literature will be instructive at this stage. The first is the restoration of a silver lyre found by Sir Leonard Woolley at the site of the royal graves at Ur, believed to date from 2500 B.C. This happened in 1927. Even at the time of excavation, plaster of Paris with a reinforcement of a wooden stick was used to disengage the crushed, loosened pieces in tact as for as their position on the lyre was concerned. At the Laboratory of the British Museum, it was reassembled on a new wooden framework using paraffin wase as consolident and adhesive. But nothing was done then about the dark brown encrustation on the silver parts. Then thirty years later, when R.M. Organ took up the work, he had the silver electrolytically cleaned until its dark-brown encrusted surface regained its silver colour. The sound box was similarly treated systematically. Finally a special framework was made in Perspex and the various pieces of the lyre reattached to it using bees' wax and a microcrystalline wax. This is a case where an earlier restoration was modified and improved upon when batter facilities and better chemicals were available.

The marble head of Mithras, excavated in London in 1955, provides another instance of excellent restoration. When it came to the Laboratory, it was "damp", muddy and encrusted with iron compounds". The marble was found to be weakened in certain parts by a form of sugary decomposition. The restoration consisted of drying out the object, removing the bulk of the encrustation with pointed match sticks, removing the iron stains with a reagent called Detarol, consoldating the sugary portions with lime water and two coats of soluble casein and joining it with the neck, which was later found at the same site, with a stout dowel of delta metal and plaster of Paris.

The restoration of an 18th century mahogany writing table acquired by the Victoria and Albert Museum is an example of how a later addition to an object has sometimes to be removed to preserve its artistic integrity. In this writing table, attributed to the royal cabinet maker, William Vile, two ornate gilt brass swag handles had been added on both sides at a later date. It was decided to remove them and after their removal, the marks left on the wood where they had been positioned earlier, were covered up with mahogany pellets and insets carefully plugged into the gaps left by the screws and bolts of the handles. Normal procedure was adopted for restroring the finish of the mahogony.

In the Madras Museum, the problem of repairing two stone objects arose. One object was of granite and had broken into two. It was about ½' high and was a heavier object. The two pieces were put together using a waterproof, acid-proof inert cement called Furacin. The Joint was strong but of a slightly darker colour. After setting, the joint was carefully sand-papered to make it even with the stone surface. The next stone object was a schist, and in this, the face had come off as a clear slice. The same cement was used, but this time it was spread out in such a way that when the two surfaces were pressed together, a gap of a few millimetres was left all round at the edge. After the setting of the cement, this gap was filled with plaster of Paris which was coloured to match the colour of the stone. The result is that the joint is not visible, and the object looks as one which is intact.

The restoration of museum objects is comparatively less complicated than that of monuments because the magnitude of the destructive factors they are exposed to is such as to let them be kept under control. In the case of monuments, their exposure to the elements makes them susceptible to destructive factors of larger magnitude. Sun, rain and wind, temperature and humidity variations, dust and chemicals present in the air, fungi and bacteria are some of the factors which bring about the degradation of structures in the open. The growth of vegetation is another factor which over a period of time can completely break up and bring down a structure. Restoration has to take into account these factors. Moreover a monument being invariably huge in size, its repair involves as well engineering principles which govern the stability and durability of structures. So the materials used in such restoration have to be selected not only for their aesthetic suitability but also for their chemical stability and physical strength in a large way.

In this regard the "Conservation Manual" of Sir John Marshall, described as "a Handbook for the use of Archaeological officers and others entrusted with the Care of Ancient monuments", is a valuable guide based on all the principles of restorations defined above. Interestingly Sir John makes the following observation : "Although there are many ancient buildings whose state of disrepair suggests at first sight a renewal. It should never be forgotten that *their historical value is gone when their authenticity is destroyed*, and that our first duty is not to renew them but to preserve them. When, therefore repairs are carried out, no effort should be spared to save as many parts of the original as possible, since it is to the authenticity of the old parts that practically all the interest attaching to the new will owe itself. Broken or half decayed original work is of infinitely more value than the smartest and most perfect new work". He provides detailed procedures for each type of restoration that may be encountered in ancient monuments.

These principles of restoration should be applicable not only to ancient monuments declared as such but even to other structures which are of historical or artistic value and even to private buildings which have period interest. In the case of ancint monuments preserved by departments of archaeology, these principles are invariably applied, but in the case of structures of historical or religious interest not declared as monuments *e.g.* temples or structures which continue to be in use like public buildings, generally these principles are not sought to be applied. The word used for their improvement or preservation is "*renovation*" which implies in most cases the total replacement of old parts by freshly made ones. As renovation again implies a renewal, a new look is sought to be given by using new materials on a fanciful basis. This happens very often in the case of temples which are ancient and sacred as well as important on artistic and architectural grounds.

Such renovations have become quite frequent recently, and since tradition sanctifies such work, the idea of adhering to the principles of restoration is not entertained generally even in cases where a certain measure of consultation with experts in restoration is done. One such case is that of the renovation of the Maduari Meenakshi Sundareswarar Temple carried out in the 60's. This is very clearly brought out by a study of the article entitled "Technical features in renovation of Sri Meenakshi Sundareswarar Temple" by P.S. Sivaprakasam, the Chief Engineer who was associated with the work. Conservation experts were consulted but when it came to replacement of the *sudai* figures by new ones, it appears to have been done without much thought about retaining as much of the old figures as possible. Similarly the conservation expert had suggested the use of a cement paint for painting the gopurams. This was done for one gopuram, and another gopuram nearby was painted with linseed oil-based paint, and public opinion was elicited regarding the suitability of either of the paints. The public preferred the oil-based paint possibly on account of its bright appearance and the Renovation Committee chose it for further work on other gopurams based on the public preference. Thus in both cases of replacement of the *sudai* figures and the painting of the gopurams, renovation was preferred to restoration, losing site of the fact that in this way "historical value is gone when authenticity is destroyed". This is reported to have happened in many cases of renovation of other temples also.

When one thinks of this, one feels how desirable it is that artistic sensibility and concern for authenticity should triumph over mere showing renewal. However, faithful to the original a present day artist can try to be, it is quite impossible to achieve authenticity because, as Ruskin said, "That spirit which is given only by the hand and eye of the workman, can never be recalled".

It is in this context that a lesson can be learnt from the large scale restoration of buildings that was carried out in Europe after the destruction of the Second World War. Many buildings which had been destroyed in the War had to be rebuilt almost completely, and this was done with great faithfulness to detail in the original after carrying out research about the materials used earlier. The result was that the new structures are as near as possible to the original. This should be our guiding principles in the restoration of all important old structures in our country, and it is desirable that this is extended even to temples which, apart from their religious importance, are monuments of architecture and history representing bygone times. A very important fact which also tends to be overlooked is that even buildings dating to the last century have their own distinctive architecture and deserve to be preserved on the same lines for their historical interest. Because of their nearness to our time, many of these private buildings with their period flavour are not considered important enough to be preserved and are demolished without a second thought.

It is time that we create a cadre of restoration experts who could advice in the restoration of all old structures. This is necessary if we are to keep our artistic heritage in monuments as authentic as possible.

9

A NOTE ON THE REH INSCRIPTION

T.P. VERMA

Professor G.R. Sharma of Allahabad University has published a fragmentary inscription on a piece stone Śivaliṅga from village Reh in the Fatehpur District, U.P.[1] Reh is an ancient site, known to the archaeologists since long, about 96 km. west of Kauśāmbi on the bank of river Yamunā. In April 1979 Professor Sharma was informed about the inscription by one of his students, Mr. D.P. Sharma. However, the Śivaliṅga is now fixed to the ground burying the inscription portion. Although the photographs published by Dr. Sharma is a good one some more snaps are needed to verify the reading of the extreme right portion of the fourth line.

This four line broken epigraph is very well executed and well preserved except the fourth line and present no difficulty in deciphering. Prof. Sharma's reading of the inscription is as follows :[2] (Plate No. XII).

1. *Maharājasa rājarājasa*
2. *mahaṁtasa trātārasa dhammī*
3. *kasa jayaṁtasa cha apra*
4. (*jitasa*) *Minanda* [*de* ?] *rasa*

Explaining his controversial restoration of the fourth line Dr. Sharma observes "Since the pillar is circular, it broke with a curvature which caused chipping of flakes. The first letter of the fourth line, *i.e.* [ji] has been completely obliterated. Of the following letter *ta* only part of the upper perpendicular vertical remains; two lower limbs are gone. Of the next letter *sa* only part of the right limb remains; the rest of this letter is either broken or chipped off. Similarly *da* in Minandarasa is disfigured by a chipping, but there is no difficulty in reading the extant portion of the letters as *Mi-na-da* [*de*] *ra-sa*."[3]

Obviously judging from the photograph of the inscription this reading is faulty and farfetched. From the remaining upper half portion of the fourth line any thing can be read but Minander. The photograph shows a gap of few spaces at the beginning of this line. It is a common knowledge that the *i* medial to *ja* is attached at the upper part of the letter and if the upper portion of the second letter *ta*, as restored by Dr. Sharma, escapes chipping one can naturally expect that the upper portion of the letter *ji* must have shared the same fate; at least *i* medial part must have been there. But nothing like that exists there. The first vertical which is to be seen in the line has been taken to be the upper part of the letter *ta* by Dr. Sharma which may or may not be that. Next to this two distinct vertical lines are there which appear to be the upper part of a single letter because a faint base line seems to join the two. The spacing between the first three verticals of the fourth line suggests that the second and third verticals form the part of a single letter. The fourth vertical is quite at a distance from the third one and has a *i* medial. But Prof. Sharma describes these in his own way. He separates the second vertical from the third one and says that it is the right limb of the *sa* of his restored word *jitasa*. But this is untenable. The letter can be found in all the three upper lines of this inscription and in every case the right limb is slightly at a lower level than the left one. It is strange that the learned author pleades otherwise. But the extant height does not support his speculative restoration. It is only if we take these two vertical together a *sa* letter is possible. Thus the reading of *apra* [*jitasa*] is highly improbable.

The reason behind the supposition of chipping off the left vertical of the restored letter *sa* becomes clear when one takes up the next letter. The author intends to reserve the right vertical for his supposed letter *mi*, the backbone of his Minander theory, by combining it with the next vertical having *i* medial. But, as indicated above, the spacing between these two verticals does not permit such combination to read the letter *mi*. It is futile to attempt to restore the remaining portion of the line with the help of the published photograph. Had the photograph been taken from the right side of the circular pillar also the situation might have been better one.

Thus the reading of the name of Minander in the fourth line appears far fetched and wishful. To impress the correctness of his reading the author gives a separate photograph of the supposed name portion on page 8 of his book in which the left portion of the line has been eliminated so that the reader may take the reading confirmed.

Writing about the palaeography of the epigraph Dr. Sharma observes "From the point of view of the development of palaeography the present Reh inscription belongs to the earliest group of post-Mauryan inscriptions, which retained similarity with archaeic forms of the script of the Aśōkan edicts, but at the same time shows tendencies heralding later developments. The inscription should, therefore, be assigned to C. 150 B.C. may be a few years earlier."[4] This observation as well as discussion of the palaeography of individual letters in the preceding paragraphs is also biased, and seems to be guided by the necessity of confirming author's reading of the name of king Menander in it. Although it is true that palaeography is not a sure method of dating a Brāhmī inscription but at the same time a tendency of gradual development Brāhmī letters cannot be denied.[5] As such there cannot be such a confusion that an epigraph of first century A.D. should be placed in the mid-second century B.C. The general formate of the letters of the present inscription at once tells to a trained palaeographer that it cannot belong to a period earlier than the first century A.D. The test letter in this epigraph is *ra* in the second line which the learned author prefers to call 'corck-screw' form. But actually this is bent-tail type of *ra* to be found in the Mathurā inscription of Śōḍasa. Not a single illustration of corck-screw type *ra* listed by Buhler resembles with this letter. As regards other so-called 'dagger-shaped' *ra* nothing special can be attached to it because this shape persists till Gupta period on coins etc. Same can be said about the letter *ja* occuring thrice in the first line and once in the third one. The *cha* has a triangular head-mark which is a clear tendency of the first century A.D. Through the verticals of the letters *ta*, *ka*, *ra*, etc. do not show distinct head-mark but this feature also continued untill a few centuries after the Christian era. The tri-angular appendage of *ma* and the flat base of *ya* leaves on doubt about the epigraph belonging to the early first century A.D.

"The importance of this inscription", the author claims, "mainly lies in furnishing the missing piece of the puzzle for want of which many historical events could not be properly interpreted, and the discovery of which has made the various pieces fall in place making historical events fit in an intelligible pattern. The archaeological evidence of unprecedented devastation of cities and towns from Delhi-Hastināpur to Patna nearly corroborates the literary testimony of valliantly wicked Yavanas marching along Mathurā to Pāṭalīputra like a conflagration burning and destorying the entire area."[4] These high sounding inferences of the author are based on his supposed reading of the name of the Indo-Greek king Minander in the fourth line of the Reh inscription which, as we have shown, is entirely imaginative and not based on sound judgement. Thus the whole theory of the invasion of the Gaṅgā Valley by Minander stands unwarranted. The excavators of these sites of Northern India have variously dated these layers of ashes which Dr. Sharma wants to bring in the mid-second century B.C. But on similar grounds these may be brought about the beginning of the first century A.D. as well.

It will be interesting to evaluate some of the techniques and arguments adopted by the learned author to impress his theory on the reader. On page 8 a Greek version of the above inscription is given which he claims to be the original one. It runs as follows :

BASILEOS BASILEON MANGALOU SOTEROS DIKAIOU
NIKETOROU KAI ANOKETOU MANANDROU

The author observes that "It appears that the text of the inscription was originally composed in Greek and was translated into the present form". Strangely enough the source of this original Greek version is not given. Actually this Greek version is a literal translation of the present Prākrit inscription which was done on the basis of the coin legends of the Indo-Greeks, Śakas, Pahlavas and the Kushāṇas.

It is well known that there has been a gradual development in the titles and epithets of kings in ancient India. This fact is more evident from the numismatic evidences. We can take the case of the Greek and Indo-Greek kings. The earliest coins of Alexander the great bear no title at all. Only *Alexandroy* is to be seen on them. But his later coins combine his name with the title *basilios*, the king. Similarly the Indo-Greek kings also bear the title of *basilios* only on their coins. This word was first translated into Prakrit as *rajane* on the copper coins of Pantaleon and Agathoclese. But soon it was replaced with the word *mahārājasa*. No Indo-Greek king has ever used the title of *basilios basilion*. This title is to be found only on the Śaka-Pahlava coins and is translated as *mahārājasa rājarājāsa* or *mahārājasa rājātirājasa*. So for as Menander is concerned he is called *basilios soteros* and *basilios dikeioy* on the copper coin which is translated respectively on the reverse as *mahārājasa trātārasa* and *mahārājasa dhramikasa*. The Bajaur Casket inscription of the time of Menander calls him only *Minendrasa mahārājasa*.[7] From where Prof. Sharma discovered these original Greek titles for Menander is best known to him only.

From the view point of the evolution of the titles of the kings this inscription cannot be placed in the mid-second century B.C. From the palaeography and titles and epithets used for the king in this epigraph it can only belong to the early first century A.D. Such epithets have been used in the Kumra inscription of the year 20 of the Kanishka era. Here the Kushāṇa king has been called *mahārāja*, *rājātirāja*, *mahata*, *trātara*, *jayata*, etc.[8] The only king of whom we can think of in the early first century A.D. whose conquests of the Gangā valley can be supported by the extensive provenance of coins, sealings and epigraphs is Wima Kadphises.[9] He calls himself *Maheśvara*, *i.e.* the worshipper of Maheśvara or, Śiva and the fact that this Reh inscription is engraved on a Śiva-liṅga can be used in the support of our hypothesis. Some of the arguments of the extensive conquest of the Gaṅgā valley by the Yavanas, used by Prof. Sharma in support of his Manander theory, can also be used for Wima Kadphises. His immediate successor Kanishka starts his political career from the mid-Gaṅgā valley is evident from the fact that his earliest Brāhmī inscriptions are to be found from the eastern Uttar Pradesh, *i.e.* Śrāvasti, Sārnāth, Kauśāmbi, etc. A sealing of Wima Kadphises from Piprahva also supports our view.[10] We propose to take up this issue later.

REFERENCES

1. Sharma, G.R., *Reh Inscription of Menander and the Indo-Greek Invasion of Ganga Valley*, Abhinava Prakashana, Samanta Shibis, Allahabad, 1980.
2. *Ibid.*, p. 7.
3. *Ibid.*, p. 8.
4. *Ibid.*, p. 10.
5. Dani, A.H., *Indian Paleography*, p. 2.
6. *Op. cit.*, p. 8.
7. Sircar, D.C., *Select Inscriptions*, p. 108.
8. *Indian Museum Bulletin*, 1973, p. 114.
9. We propose to discuss these materials in some other articles.
10. *Journal of the Epigrophical Society of India*, Vol. VII (1980), pp. 98-103.

10

DIVĒ-ĀGAR PLATES OF GAṄGA DURVINĪTA

M.D. SAMPATH*

The plates on which the subjoined grant is engraved are reported to have been in the possession of Bhārata Itihāsa Saṁśōdhaka Maṇḍala at Poona. They have been discovered in the village Divē-Āgar in the Srivardhan Taluk of the Kolaba District. They were kindly brought by Dr. G.S. Gai, former Chief Epigraphist in 1962-63 and included in the Annual Report on Indian Epigraphy as No. A 45. The plates are published here with the kind permission of the Chief Epigraphist, Archaeological Survey of India, Mysore.

The set consists of five plates measuring 21 × 8 cm. At the proper right margin in each plate is a ring-hole. The ring and the seal appears to have been missing.

The charter records the royal grant of the *vṛitti* formed of the one fourth of the village Chūṛūra, and Toḷavakuṇṭā-taṭāka, both included in Kovaḷāla-vishaya, to Sēna-śarman of Kautsa-gōtra and Vājasanēya-śākhā. Paralkuṇṭe is stated to have been one of the fields in the lands endowed.

The record is in Sanskrit prose except for the imprecatory verses attributed to Manu as in the Penugoṇḍa[1] and Sāsanakōṭa plates[2] of Mādhavarman.

The script is an early variety of the Southern class of alphabets and is definitely later to that of the Sāsanakōṭa plates[3] of Mādhavavarman. It is necessary to mention here that the characters of the present grant and the Gummareḍḍipura plates[4] are identical. The letters of the second set of Uttanūr plates[5] are not uniform and have been executed in a crude way. Our record can palaeographically be assigned to C. 6th century A.D.

The other charters issued by this king are Uttanūr plates (Set I)[6] dated in the 20th regnal year, Gummareḍḍipura plates[7] dated in the 35th regnal year and the record from Doḍḍabaḷḷāur[8] and Nallāḷa grant[9] both dated in the 40th year.

The language is not currupt and the orthography is mostly unexceptionable and free from errors.

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It deserves to be mentioned here that the present grant is one of the genuine copper-plate documents of this king and of the period. The other two genuine grants are the Gummareḍḍipura plates and the Uttanūr plates (Set I).

The grant in question gives genealogy of kings commencing from Koṅgaṇi-varmma. It is identical with the Uttanūr plates (Set I), Doḍḍabaḷḷāpūr inscription and the Gummareḍḍipura plates as regards the genealogy and the details about the various kings who preceeded Durvinīta. It describes Durvinīta as the son of the beloved daughter of Skandavarman, the king of Punnāḍ. He was born to Jyēshṭhā, who in all probability was the daughter of Skandavarman, as known from his Gummareḍḍipura plates. Further, our grant describes him as the follower of his father Avinīta; as having his broad chest embraced, of her own accord, by the goddess of sovereignty, though she was intended by his father for another son; as the subjugator of all chieftains by the three constituents of regnal power; as having caused bewilderment to the fire of Yama by the excess of food in the shape of victims of heroes immolated at the sacrifices of battles at Andari, Ālattūr, Poruḷaṟe, Pernnagara and several other places; as the lord of entire Pannāḍa and Punnāḍa; as resembling Vaivasvata Manu in the protection of castes and religious orders; as capable of protecting the southern country; as kind to all and as possessed of loyal subjects.

Then it proceeds to record that Durvinīta; in the 40th victorious year of his reign, on the third day (*puṇāyān-tithau*) of the bright fortnight in the month of Vaiśākha, while the *nakshatra* was Rōhiṇī granted *vṛitti* exempting it from all taxes to one Sēna-śarma, of the Kautsa-gōtra and Vājasanēya-śākhā. The *vṛitti* so granted is called Paralkuṇṭe which comprises of one fourth of the village Chūṟūr and the village Toḷavakuṇṭe in the Kovaḷāla-vishaya. The officers of the Gaṅga kingdom and the brāhmaṇas are mentioned as the witnesses to the grant. This is followed by the imprecatory verses, at the end of which is metioned that the plates were engraved by Koṅgaṇi Perntaṭṭāra belonging to the lineage of Kūnāchāryya. To him was endowed, land with a sowing capacity of one *khaṇḍuka*.

The record under review is interesting from the statements referred to in the genealogical portion. The statement pp. 27-28 : "*pitr-āpara-suta-samā varjitayāpi Lakshmy-āsyayam-abhi-praty-āliṅgita vipula-vakshasthalēna*" given in the present grant as in the Gummareḍḍipura plates and Doḍḍabaḷḷāpura record, may be taken to mean that "though the father, Avinīta, had intended the crown for another son (*apara-suta*), the goddess of sovereignty came of her own accord to Durvinīta".[10] In the Nallāḷa grant[11] of Durvinīta, it is stated that he had recovered the kingdom from his step-brother who had occupied it. It appears that Avinīta had at least one more son born of a second wife. It has also been thought that Avinīta might not have had a second wife and the reference to the step-brother, might only be connected with a member of the collateral branch. The expression *dvai-matrēyānuja* has been taken to be a reference to a prince of the collateral Gaṅgas which had been practically put an end by Mādhava II.[12] We do not know whether this younger brother is related through his mother of the Kadambas of Triparvata or the Pallavas who tried to replace Durvinīta from the throne after the death of his father. But the possibility of the existance of a collateral family is rather less. Since we do not know who the younger brother of Durvinīta was, it is difficult to say that the throne was occupied by Durvinīta's step-brother even before the accession of Durvinīta. It is said that Durvinīta was also called Nirvīnta.[13] Assuming this identification as correct, it is said in the Sirigunda inscription[14] that the younger brother of Nirvīnta was given a portion of the territory by the people of Nandyāla when he was deprived of the throne.

Durvinīta's accession to the throne does not appear to have been smooth for, as noted above, he had wrest the kingdom from his younger brother, who it appears was selected by Avinīta to succeed him, in preference to his elder son.

The present charter and the Gummareḍḍipura plates refer to the killing of his enemies in the battles of Ālattūr, Poṛalaṛe and Pernagara. The details of these battles, however, are not forthcoming. As the same record also state that he was capable of protecting the southern country (*dakshiṇām diśam-abhigōptum*) and as it is also known that Chālukya Kīrtivarman I defeated the Gaṅgas, it is thought that these refer to the battle fought between the two kings Durvinīta and Kīrtivarman I. Barring the above interpretation based on a verse found in a late record,[15] Dr. Srikanta Sastri, while editing the Habbaṭa grant of Durvinīta has stated that this king defeated the Pallavas and installed Jayasiṁha the grandfather of Pulakēśin I on the throne. The verse in the Humcha inscription of Nanni Sāntara[16] is supposed to refer to the death of Vijayāditya, the father of Jayasimha Vallabha in this battle at the hands of the Pallava king Trilōchana Pallava. Taking the gap of three generations before Pulakēśin I, Durvinīta has been assigned the date of the late fifth and the early sixth century A.D.

The statement that Vikramāditya I, son of Pulakēśin II was installed on the throne by Durvinīta has not been accepted by scholars. It is stated in the Huṁcha inscription dated A.D. 1077, that Durvinīta defeated Kāḍuveṭṭi who is identified with Pallava Narasiṁha-varman I.[17] But the record which refers to this incident is dated nearly five centuries later, in as much, the statement contained in it cannot be taken to be correct. We have seen in the charters of Durvinīta that Skandavarman II, the Punnāṭa chief gave his daughter in marriage to Avinīta, the Gaṅga, whose son Durvinīta inherited the Punnāṭa country as a dauhitra. According to Dr. Srikanta Sastri, Skandavarman was a Punnāṭa king of the Tāmra-Kāśyapa family and he did have a son, Ravidatta who is known from his Kamaraliṅgam plates.[18] Though the issuer of Māmbaḷḷi plates is not known it has been assigned to C. A.D. 550 by Narasimhachar on the basis of the palaeography and its genuineness. Ṭaking these things into consideration Dr. B.R. Gopal[19] had suggested that Durvinīta (acc. A.D. 529) must have inherited the Punnāṭa country from his maternal uncle Ravidatta, the only son of Skandavarman II, who must have predeceased his father. The reference to Durvinīta as a lord of Punnāḍa in his Uttanūr plates (Set II) dated in his 20th regnal year helps us to surmise that the Punnāṭa country went into his hands immediately after the death of Ravidatta for, he seems to have died childless.

Durvinīta was himself a great scholar besides being a warrior. He was the author of Śabdāvatāra; translated the Vaḍakathā of Guṇāḍhya; wrote a commentary on Kīrātārjunīya of Bhāravi, who was his contemporary.

The grant villages Chūṛūra and Toḷavakuṇṭha are not identifiable.

TEXT[20]

1. Svasti jitam-Bhagavatā gata-ghana-gagan-ābhēna Padmanābhēna [1*] śrīmaj-Jāhnavēya-kul-ā-
2. mala-vyōm-āvabhāsana[21]-bhāskarasya sva-khaḍg-aika-prahāra-prahāra-khaṇḍita-mahā-śila-stambha-
3. labdha-bala-parākrama-yaśasaḥ dāruṇ-āri-guṇa-vidāraṇa raṇ-ōpalabdha-
4. vra[ṇa]-vibhūshaṇa-vibhūshitasya Kāṇvāyana-sagōtrasya śrīmat-Koṅgaṇi-
5. varmma-dharmma-mahādhirājasya putrasya pitur-anvāgata-guṇa-yuktasya vi-
6. dyā-vinaya-vihita-vṛittasya samyak-prajā-pālana-māṭr-ādhigata-rājya-prayōja-

SECOND PLATE : FIRST SIDE

7. nasya nānā-śāstr-ārtha-sad-bhāv-ādhi-gama-praṇita-mati-viśēshasya vidvat-kavi-kāñchana-ni
8. kash-ōpala-bhūtasya viśēshatō=py=anava-śēshasya nīti-śāstra-vaktṛi-prayōktṛi-kuśa-
9. lasya suvibhakta-bhakta-bhṛitya-janasya Dattaka-sūtra-vṛittēḥ=praḍētuḥ śrī-Mādhava-ma-
10. hādhirājasya putrasya pitṛi-paitāmaha-guṇa-yuktasya anēka-chaturddanta-
11. yuddhāvāpta-chatur-udadhi-salil-āsvādita-yaśasaḥ sa-mada-dvirada-turag-ārōhaṇ-ā-
12. tiśay=ōtpanna-tējasaḥ dhanur-abhiyōga sampādita-sampad-viśēshasya śrīmad-Hariva-

SECOND PLATE : SECOND SIDE

13. rmma-mahādhirājasya putrasya guru-gō-brāhmaṇa-pūjakasya Nārāyaṇa-charaṇ-ānudhyā-

14. tasya śrīmad-Vishṇugōpa-mahādhi-rājasya putrasya Tri[ya*]mbaka-charaṇ-āmbhōruha-rajaḥ-pa-
15. vitrīkṛit-ōttam-ājñasya Vyāyāmōd-vṛitta pīna-kaṭhina-bhūja-dvayasya sva-bhuja-bala-
16. parākrama-kraya-krīta-rājasya kshut-kshām-ōshṭha-piśitāśana prītīkara-niśita-dhā-
17. r-āsēḥ Kali-yuga bala paṅka(ṅk-ā)vasa-nna-dharmma-vṛisha-ōddharaṇa-nitya-sannaddhasya śrīman-Mā-
18. dhava-mahādhirajasya putrasy=āvichchhi nn-āśvamēdha-āvabhṛith-ābhishikta-śrīmat-Kadamba-kuḷa-

THIRD PLATE : FIRST SIDE

19. gagana-gabhastimālina[ḥ*] śrī Kṛishṇavarmma-mahārājasya priya-bhāginēy-asya jananī-
20. dēvatāṅka-pariyaṅka ēv-ādhigata-rājyābhishēkasya vijṛimbhamāṇa-śakti-trayasya
21. paraspar-ānavamarddin-ōpa-bhujjyamāna-trivarga-sārasya āsaṁbhram-āvanamita
22. samasta-sāmanta-maṇḍalasya nirantara-prēma-bahumān-ānurakta-prakṛiti-varggasya
23. vidyā-vinay-ātiśay-paripūt-āntar-ātmanaḥ Kārttayugīna-rāja-charit-āvalambinañaha-
24. nēka-samara-vijay-ōpā[rjji]ta-vipula yaśaḥ-kshīr-ōdaik-ārṇna-vikṛita-bhuvana-trayasya

THIRD PLATE : SECOND SIDE

25. niravagraha-pradāna-śauryyasy=avishahya-parākram-ākrānta-pratirāja-mastak-ārppit-āpra-
26. tihata-śasanasya vidvatsu prathama-gaṇyasya śrīmat-Koṅguṇi-mahādhirāja-sya Avinīta-nānma(mna)ḥ
27. putrēṇa Punnāṭarāja-Skandavarmma priya-putrīka-janmanā sva-guru-guṇ-ānugāminā pitr-āpara-suta
28. samāva[r]jjitay=āpi Lakshmy-ā svayam-abhipraty-āliṅgita-vipula-vakshasta (tha)lēna vijṛimbhamāṇa śa-
29. kti-tray-ōpanamita-samasta-sāmanta-maṇḍalēna Andariya Āllattūr Poru[ḷa]ṛea-Pernnagar-ādy-a-

30. nēka-samara-mukha-makhāhūta-prapāta-śūra-purusha paśupahāra-vighasa-vihastīkṛita-kṛit-ānt-ā-

31. gni-mukhēna Sa[bdā]vatāra-kārēṇa dēva-bhārati-nibaddha Vaḍḍakathēna Kirātār-junīyē pañcha-daśa-

FOURTH PLATE : FIRST SIDE

32. Sargga-ṭīkākārēṇa Durvvinīta-nāmadhēyēna samasta-Pāṇṇāḍa-Punnāḍ-ādhipatinā vai-

33. vasvatēn=ēva Manunā varṇṇāśram-ābhi-rakshiṇā dakshiṇān-diśam-abha-(abhi)gōptuṁ paryyāpta-

34. vatā prāti-janīnēna suprasā ātmanaḥ=pravard-dhamānē chatvāriṁśa[tta]m=ēti jaya-sa-

35. mvatsarē Vaiśākhē māsē śukla-pakshē puṇayān(ṁ) tithau Rōhiṇī-nakshatrē Kautsa-

36. gōtrāya Vājasanēyāya Sēnaśarmmaṇē Kovaḷāla-vishayē Paralkuṇṭē pra-

37. bhṛiti Chūṛūra-grāma-chatur-bhāgaś-cha Toḷavakuṇṭē-taṭākaś=cha yāny=ētāni vṛitti

FOURTH PLATE : SECOND SIDE

38. jātāni sarvvāṇi sarvva-parihārāṇi dattāni [ll*] tasy=ai-tasya sākshiṇaḥ

39. Gāṅgarāja-kula sakalā-sthāyikā-purushā-brāhmaṇā=cha [l*]ya ētāni lōbhāt=pra-

40. mādādva=apaharēt-sa-pañchamahāpātaka-saṁyuktō bhavati [ll*] Api chātra Manu-

41. gītā [ḥ*] ślōkā [ḥ*] bhavanti [ll*] sva-dattā [ṁ*] para-dattāṁ va yō-harēta Vasundharāṁ(rām) [l] shashṭiṁ varsha saha-

42. srāṇi ghōrē tamasi varttatē [ll*] Bahubhir=vvasudhā dattā bahubhiś=ch=ābhipālitā [l*]

FIFTH PLATE

43. yesya yasya yadā bhūmis=tasya tadā phalam [ll*] Adbhir=dattaṁ tribhir=bhuktaṁ sa

44. dbhiś=cha paripālitaṁ ētāni na nivarttantē pūrvva-rāja kṛitāni cha [ll*] Brahmasvan=tu(svaṁ=tu) vishaṁ

45. [ghō]raṁ na vishaṁ visham=uchyatē [I*] visham=ēkākinaṁ hanti brahma-svaṁ putra pautrikam [II*]
46. Kunēchāryy-anvayēna Koṅgaṇi-Pernataṭṭārēṇ ēdan (ēdaṁ) tā[ṁ]bra-śāsanaṁ likhitaṁ tasmāy=ai-
47. ka khaṇḍukavāpa-mātran=tatra (mātraṁ tatra) su-kshētraṁ brahmadēya kramēṇa dattam [II*]

REFERENCES

1. Above, Vol. XIV, p. 331.
2. Above, Vol. XXIV, p. 239.
3. *Ep. Ind.*, Vol. XXIV, pp. 238-39 and plates.
4. *Mys. Arch. Rep.*, 1912, pp. 31-32 and plate.
5. *Ibid.*, 1917, plate facing p. 37 and text, p. 2.
6. *Ibid.*, 1916, pp. 35-37 and plate facing p. 36.
7. *Ibid.*, 1912, p. 32.
8. *Ep. Carn.*, Vol. X, Db 68.
9. *QJMS.*, Vol. XXXVIII, p. 90ff.
10. *Op. cit.*, 1912, p. 35.
11. *QJMS.*, Vol. XXXVIII, p. 90.
12. *Ibid.*, p. 91.
13. Nirvinīta has been taken as referring to Avinīta and his younger son as Durvinīta. It is mentioned that Durvinīta was placed on the Koṅgaṇi throne by Kāḍuveṭṭi and Vallaverasa. (*Mys. Arch. Rep.*, 1912, p. 35.)
14. *Ep. Carn.*, Vol. VI, Cm 50; *Q.J.M.S.*, Vol. XXXVIII, pp. 91-92.
15. *Ep. Carn.*, Vol. VIII, Nr. 35.
16. *QJMS.*, Vol. XXXVIII, p. 80.
17. *Karṇātakada Arasumanetanagalu*, p. 141.
18. *Ind. Ant.*, Vol. XVII, p. 366.
19. *Ep. Carn.*, Vol. IV (Rev.), Introd. pp. 98-99.
20. From photographs published in the *Annual Report of Indian Epigraphy*, 1962-63.
21. The Penugoṇḍa plates states *Vyōma-bhāsano.*

11

NOTE ON A VERSE OF THE INSCRIPTION FROM KUDĀRKOṬ

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In the pages of *Epigraphia Indica*, Volume I, Prof. Kielhorn has edited a stone inscription from a place called Kudārkoṭ, district Etawah, Uttar Pradesh.[1] The inscription which he has rightly assigned with some certainty to about the latter half of the seventh century A.D.,[2] begins with a benedictory verse where *simha-vāhinī Durgā* is praised, figuratively by way of *utprēkshā*, being compared with the landscape (*bhū*) of the Prālēyāchala *i.e.*, the Himālayas. It is this particular ślōka of the inscription and its worthy translation by Kielhorn which we aim to reconsider here.

Before taking up the translation part of the *ślokā*, which no doubt, forms the main theme of our discussion, it will not be irrelevent first to cite the text of the *ślokā* as ably read and transcribed by the learned Professor. It reads as :

San-nihita-nīlakaṇṭhā[3] *nitamba-taṭa-śōbhinī sa-siṁha-guhā*
Jayati Prālēvāchala-bhūr-iva Durggā sadā sumukhā[4]

Ag regards the reading of the text, it is flawless and there is hardly any points of disagreement with it. But the way in which Prof. Kielhorn has split the compounds, interpreted the adjectives and translated them, certainly raises issues which deserve our attention.

The translation of the above cited verse, as given by Kielhorn, reads as follows :

Ever trumphant is the handsome-faced Durgā, who, approached by the blue-necked (Śiva), shining with her broad hips, (and) accompanied by the lion and by Kārttikēya, is like the range of the snowy mountain, which is frequented by peacocks, beautified by broad ridges (and full of caves of lions).[5]

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As it is clear both from the text and the translation, goddess Durgā is compared here with a place, site, region or the range (*bhū*) of the snowy mountain, Himālya, called Prālēyāchala. In order to drive home this supposition (*utprēkshā*), the poet of the inscription has enumerated features which are common to both the iconography of the goddess Durgā and the landscape of a region of the mountain. This he has done cleverly with the help of words having double-entendre, and the real purport of these words applied figuratively, in our opinion, has been taken lightly by Prof. Kielhorn, with the result that the whole sense of the *ślōka* has remained obscure. It is, therefore, necessary to analyse the translation of Kielhorn and see how and in what sense he has explained the words of double entendre.

According to the translation of Kielhorn, it appears that the poet of the text has tried to establish the comparison between the goddess Durgā and the region of the mountain on three accounts. One is related to *Nīlakaṇṭha* (*i.e.* Śiva or the peacock), another to *nitamba-taṭa i.e.* the goddess shining with her broad hips or the mountain region beautified by broad ridges. The third point of comparison, as explained by Kielhorn, is established with the help of *sa-siṁha guhā* meaning that the goddess is accompanied by the lion (*siṁha*) and by Kārttikēya (Guha).

Here, as regards the meaning of the first compound *san-nihita-Nīḷakaṇṭhā*, there is no doubt nor any misunderstanding[6], but the splitting done and the meaning given for the second (*i.e. nitamba-taṭa*) and third (*i.e. sa-siṁha-guhā*) compounds is not free from doubts nor misunderstanding. We propose to examine them here in the same order.

The compound *nitamba-taṭa-śōbhinī*, is taken by Kielhorn as formed of three words. The first is *nitamba* meaning: (i) the buttocks, hips or the posteriors of a woman; or (ii) the slope-ridge, side of flank of a mountain;[7] the second is *taṭa* which is : (i) a slope, declivity, shore or the bank of a river, etc.; or (ii) a term applied to certain parts of the body which have, as it were, sloping sides like *jaghana-taṭa kaṭī-taṭa, śrōṇī-taṭa, kucha-taṭā, kaṇṭha-tāṭa* and *lalāṭa-tāṭa*.[8] The third one is *śōbhinī* which is the gerundal form of the root *śubh* in its feminine gender giving the meaning of glowing, shining, etc.

Thus, the whole phrase should literally mean 'one, the slopes (*i.e. taṭa*) of whose hips (*nitamba*) are shining or who is shining with her broad hips', as Kielhorn has taken it.[9] The second meaning is applicable to a mountaineous region, as we have already seen above.

Now, if we agree with Kielhorn and the way he has separated this compound from the succeeding one *i.e.*, *sa-siṁha-guhā*, we are bound to agree with its literal meaning as given by him. In other words, we will agree with a phrase and its meaning which is certainly not of a high order, specially regarding the goddess who is being praised here. If it is true, which we doubt, the poet Bharda who composed the verse was certainly immature both in his expression and imagination and was equally ignorant of the poetic propriety (*kāvyauchitya*). In that case his statement that *Ramyā Gavidhumati saṁṭata-Vēda-Vidyā-Vyākhyāna* *ghōcha badhi rikṛita diṅmukhēasmin* and *Bhadreṇ-aitē rachitā Vāmana-tanayēna sucharitaślōkāḥ*', etc.[10] will prove a mere boasting and nothing else.

But judging from the style, expression, language and the high class of imagery which the poet Bhadra has ably and almost faultlessly displayed all over the inscription, to think on the above lines and find fault with him, will be exposing one's own ignorance. He can certainly not be made guilty of intending to use such an unfamiliar comparison and committing the fault (*chyuti* or *dōsha*) of *a-prasiddhi*.[11] In that case, it is the *samāsavichchēda* (splitting of the compound) of Kielhorn which in all probability is not done properly and once the compound itself is misunderstood, the meaning derived from it is bound to be misleading. How and in what way the compound should have been actually split to obtain the desired meaning, we shall see after examining the third clause also of Kielhorn's rendering.

The third compond clause of Kielhorn's rendering is *sa-siṁha-guhā*. This is formed of *sa*, *siṁha* and *guhā*, three words. He has translated, it as one (in case of Durgā) who is accompanied by the lion and by Kārttikēya, and (ii) which is full of caves of lions. It is clear that the meaning of the word *guhā* of the compound, he has taken once as *Kārttikeya* and other time as caves. At first instance the meaning of the word *guhā* for *Kārttikēya* itself seems to be strange one, as the word is known better as *guha* and not *guhā* which is a snonym of *giri-kandarā giri-gahvara* or the cave only. This objection may be set aside when we admit that the compound is *bahuvrīhi* and the clause is *ā* ending with *ākārānta* feminine. That means it will be explained on the same analogy as that of the first compound-clause *sannihita-Nīlakaṇṭā*. In other words, the explanation of this clause will be *siṁhēna cha guhēna cha sahityā sa-siṁha guhā*, which will render the meaning, Kielhorn has taken. But there are certain other objections in agreeing with this explanation of Kielhorn.

The first objection is, in this case, the clause even after it is spilt, remains silent as to whom both the lion and Kārttikēya are accompanying? Though we know that they are accompanying Durgā, we do not know their actual position, where as the poet has equally illustrated that point as well.

Second objection of a minor nature will be in accepting the unfamilar meaning of the term *guhā* as Kārttikēya which even though grammatically and figuratively be possible and may not be called a doubtful case, it will certainly be a case where the meaning of the word is farfetched. Besides lingual problem it will also raise an iconographic issue where, as per the survey made by the scholars, the *sōma-skanda* (*i.e. Śiva-Pārvatī* and *guhā*) form of Śiva is not only rare in the North (the locality wherefrom the inscription hails) but rather unknown,[12] particularly during the period represented by our record. On the other hand it was the Umā-Mahēśvara form of Śiva which was more common both in that region and the period.

In our opinion, these problems can be set right if we admit the whole pāda of the verse *i.e. nitamba-taṭa śobhini-sa-śiṁha-guhā*, as an independant compound and split the same as follows :

(i) For deriving the first meaning intended by the poet, if we break the compound as *simhēna-cha guhēna cha sabitayā sōbhate nitamba taṭo yasyāḥ-sā sumukhā Durgā jayati i.e.* triumphant is that handsome-faced Durgā, the slopes (*taṭa*) of whose posteriors are graced by the presence of the lion and Kārttikēya, we will be nearer the meaning desired. The idea of the poet is that the Kārttikēya is seated on the lap or the slopes of the hips of Durgā and the lion is near by it. A look into the details of the sculptures of this type help us better to grasp the idea in toto.[13]

Other meaning of the same clause will be that the slopes of the ranges of mountains are having caves full of lions.[14]

Thus, the betterment brought out by our suggestion will be that the verse will no more suffer either from the poetic impropriety (*kāvyā-nauchitya*) or from the fault (*dōsha*) of applying an unfamiliar usage (*a-prasiddhi*). Apart from it, the poetry will also have the beauty of *ā*(*ākārānta*) ending *anuprāsa* well in accordance with the feminine form like *san-nihita-Nīla-Kaṇṭhā* and *sadā-sumukhā*.

As noticed above, words like *Nīlakaṇṭha*, *nitamba-taṭa* and *guhā* are endowed with double-entendre and thus they display the *ślēsha* type of speech. But regarding the two meanings of the word *guhā*—a doubt is already raised. Looking from the sculptural point of view where the lion of Durgā is not only shown seated close to her hips but also with his mouth opened wide like a cave and that way justifying the description 'cave-mouthed' or *guhā-mukha*.[15] We are tempted by this feature of the face of the lion and remembering at the same time the fact the *Sōmā-skanda* form of Śiva was not common in the North, to suggest that the sub-clause *sa-simhā-guhā* is used only to qualify the cave-mouthed lion of Durgā. In that case the compound ought to be explained as *siṁhasya guh-ēva mukhaṁ yat, tad-ēva simha-guhā* and *tayā sahitayā śōbhatē nitamba taṭō yasyāḥ sā Durgā*. It will mean Durgā near whose hips is seen the cave-mouthed lion. That way the word *guhā* will render only one meaning as 'a cave' because there will be no *ślēsha* applied. It will be rather a case of *samāsōkti* which, as per Mallinātha,[16] is applied in cases where the potentiality (*sāmarthya*) of the abjective is capable of suggesting the sense (*bhāva*) which is not otherwise stated in words (*a-prastuta*).

REFERENCES

1. *Ep. Ind.*, Vol. I, No. XXII, pp. 179-84.
2. *Ibid.*, p. 180. Since the verse under consideration is also concerned with the iconographic features of Śiva and Pārvatī where the geographical and chronological factors are equally noteworthy, we have, with purpose, included here the details about the place and the period of the inscription.
3. The orthography of the inscription itself does not observe the signs for compounds. Therefore, the editor, who has transcribed the text in Nāgari script, has also avoided them. These marks are added here by me.
4. *Ibid.*, p. 180, the text, line 1. The verse is in *Āryā* metre.

5. *Ibid*., p. 182, traslation, verse 1. Here is also a note (No. 28) saying that the lion is the vehicle of Durgā, (and) Kārttikēya her son.
6. Except perhaps the term *san-nihita* which means placed near, lying close, contiguous, neighbouring and proximate, etc. as per the context it would have been better had it been rendered as 'one who is placed or seated near (Śiva)' rather than 'approached by'. The propriety of our rendering becomes clearer when we see it in the light of the scuptures of the period depicting *Umā-Mahēśvara* or *Hara-Gaurī* where Pārvatī is invariably shown seated close by Śiva.
7. Cf. '*Mandarasya kaṭakēshu cha-āvasat* etc. of *Kumārasambhava*, 8.23 and the commentary thereupon of Mallinātha which says *Mandarasya cha kaṭakēshu nitambēshu* etc., based on the authority of '*kaṭako=strī nitambo=drēḥ* of *Amarakōsa*.
8. Cf. *Padmā-payōdhara-taṭī parirambha-lagnā* of *Gītagōvinda*, 1. and *no luptaṁ sakhi chandanaṁ stana-taṭē* of *Śṛiṅgāratilaka*, 7. Of these usages *kaṭī-taṭa*, *kucha-taṭa* and *lalāṭa-taṭa* are met with frequently in literature.
9. Application of the adjective 'broad' before hips is only on account of the fact that the word *nitamba* has also the meaning of a mountain.
10. See above, text, lines 10, 11, p. 182 and the translation on p. 183.
11. The term *nitamba-taṭa-śōhinī*, if taken in the sense Kielhorn has taken it will fall under the clause of a poetic impropriety (*anauchitya*) termed as *aprasiddhi-dōsha* in Sanskrit poetics. For details, see *Sāhityadarpaṇa* of Viśvanātha and others.
12. C. Sivaramamurti, Geographical and chronological factors in Indian Iconography : *Ancient India*, No. 6, p. 58.
13. For such details see 'The art of India' by C. Sivaramamurti (New York, 1977) pls. Nos. 341, 596 and 598 which bear out the fact about the position of the lion. In case of a *Nārasimhī* from Satna (*Ibid*., pl. 598) where the lion, with its mouth open, is almost touching the *nitamba* of the goddess, the illustration of this idea is even more convincing. Similar is the case with the *yakshī Ambikā* (*Ibid*., pl. 820) from Ellora.
14. Cf. *gaurī-gurōr-gahvaram-āvivēśa* (*Raghu*, II, 26) and *guhā-mukha-visarpiṇā* (*Kumāra*, VI, 64) of Kalidāsa's descriptions.
15. See Apte's dictionary, p. 667.
16. Mallinātha on *Kumāra*., 3. 29. The definition of *samāsōkti* as given by him is '*Viśeshaṇa-sāmarthyād-aprastutasya gamyatvē samāsoktirishyata*' *iti*.

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THE KĀÑCHĪPURAM INSCRIPTION OF JAṬĀ-CHOḌA BHĪMA AND RĀJARĀJA

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The students of Eastern Chāḷukyan History know well that the Telugu-Chōḍa king Jaṭa Chōḍa Bhīma usurped the Eastern Chāḷukyan throne sometime in the 2nd half of the 10th century and that the Chāḷukya prince Śaktivarman and his younger brother Vimalāditya got the help of the Chōḷa emperor Rājarāja I (A.D. 985-1014), vanquished the usurper and got back the Vēṇgī kingdom by A.D. 999, putting an end to the 27 years of interregnum in Eastern Chāḷukyan history. Scholars find themselves in two opposite schools, with regard to the details of Chōḷa-Chāḷukya-Telugu-Chōḍa wars and the date of final fall of the Bhīma. Their difference of opinion is mainly due to the fact that the Kāñchī Kailāsanātha temple inscription that mentions Chōḍa-Bhīma and Rājarāja I is unfortunately very fragmentary. In the present paper an attempt is made to study the problem briefly and to suggest a probable solution.

The said Kailāsanātha temple inscription is mainly a Sanskrit record with some short Telugu passages, especially towards the end, all praising Chōḍa Bhīma. At the end of the record there is a short Tamil sentence that goes to say "Chōḍa Bhīma of such a great glory has been vanquished by Rājarājakēsarin".

Scholars like K.V.S. Aiyer, C.R.K. Charlu and others who were to examine the record first, thought that the inscription bears a date in the Śaka year 922 *i.e.*, A.D. 1001-02. Hence, they ascribed the record on the basis of the said Tamil sentence to the Chōḷa king Rājarāja I[1]. However, scholars like B.V.K. Rao and N.V. Ramaniah attributed the epigraph, on the basis of the *praśasti* portion, to Chōḍa Bhīma himself. Hence, these scholars maintained that, though Rājarāja I helped Śaktivarman to get back the Chāḷukyan throne in about A.D. 999, by driving Bhīma out, the latter subsequently gathered his forces from his Kaliṅga dominions, managed to retaliate the enemies and overran easily as far South as

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Kānchī, the secondary Chōḷa capital which Bhīma occupied for sometime in A.D. 1001-02; and that he was, however, soon vanquished by the combined Chōḷa-Chāḷukya forces.[2]

Prof. K.A.N. Sastri followed the first school in 1935[3] but subsequently got himself converted to the second school in 1955[4]. His latest view was this : the Kaīlāsanātha temple *praśasti* belongs to the reign of Bhīma, while the Tamil sentence at the end was subsequently added during the time of Rājarāja I.[5] Let us review the problem now.

First of all, it should not be forgotten that we have got in and around Kāñchīpuram a good number of inscriptions dated in the 16th, 17th and 18th regnal years of Rājarāja I.[6] They all indicate that the Kāñchī region had been under the effective control of Rājarāja I during A.D. 1000-03. On the other hand, excepting the present doubtful Kailāsanātha temple *praśasti*, not a single record ascribable to Bhīma has been found in this area. Therefore, the theory of Bhīma's occupation of Kāñchī seems to require some stronger evidence than the solitary and fragmentary *praśasti* under question.

Further, it has been accepted on all hands that Rājarāja I had conquered Vēṅgī by A.D. 999 and that Śaktivarman ascended the throne in the same year. The latter claims to have come to power by killing Bhīma and then to have ascended the throne.[7] Hence, it may not be that easy to ascribe an epigraph of A.D. 1001-02 to Bhīma.

Moreover, the mutilated passage that gives the Śaka date in the *praśasti* under question requires a more careful examination. The extant portion reads :

> *—ka-nṛipa-nava-śata-saṅkhyā*
> *vi...shu yātēshu tribhiradhikēshu* (Section I, line 8).

The editor of the record, Sri K.V.S. Aiyer, took the letter *vi*, following *saṅkhyā* for the first letter of *vimśati* "twenty", now lost. On that account the scholar concluded that the year intended was Śaka 923. However, students of Sanskrit know well that *nava-śata-saṃkhyā-viṃśati* is not at all a happy compound. On the other hand it is better to take *vi* as the only available first letter of an expression like *viśishṭeshu*. In that case the intended reading of the passage will be something like

> *.........Śaka-nṛipān=nava-śata saṅkhyā-*
> *viśishṭēshu yātēshu tribhir adhikēshu*

Therefore, the date of the *praśasti* would seem to be not Śaka 923 (A.D. 1001-02) but only Śaka 903 *i.e.* A.D. 981-82. This year fell not during the reign of Rājarāja I but during the reign of his predecessor Parakēsari Uttama Chōḷa. Again, one should bear in mind that there are inscriptions at Kāñchī itself bearing dates in the 15th and the 16th regnal years of Uttama Chōḷa,[8] *i.e.* A.D. 982-84. They testify that even during this period the Kāñchī region was most probably under the complete control of the Chōḷas. Further, it is known that Uttama Chōḷa was not a very powerful monarch. Hence it is unlikely that he would have wrested back the Kañchī region from such a powerful enemy like Chōḍa Bhīma. Moreover, nowhere in the Chōḷa records Uttama Chōḷa has been credited with such an achievement.

Further, it is to be borne in mind that Kāñchī has been one of the most important centres of pilgrimage throughout the ages, like Drākshārāma, Gayā etc., where there are inscriptions of certain kings who never ruled over those places.[9] In Kāñchī itself, in the Aruḷāḷapperumāḷ temple there are Eastern Gaṅga epigraphs that belong to a period when Kāñchī was under the effective Chōḷa control. Scholars have rightly held that these records are to be taken as pilgrim records only.[10] In the same manner, the Kailāsanātha temple record also—whatever may be its date—may have to be taken only as a pilgrim record even if it is to be ascribed to Chōḍa Bhīma. Consequently the mere presence of Bhīma's *praśasti* at Kāñchī cannot by itself prove that the place was under Bhīma's rule.

Another point that requires a close examination is this : In the Kailāsanātha temple *praśasti* we find refernce to Chōḍa Bhīma's victory over the Vaidumbas, the Eastern Gaṅgas and the Eastern Chāḷukyas, and to his annexation of the Kaliṅga and Andhra countries (Section I, lines 4-5. Section II, line 7, 40; etc.). Bhīma's association with the Rāshṭrakūṭa king Kṛishṇa is also referred to (Section II, line 10). On the other hand, it is significant that the *praśasti* mentions neither Bhīma's victory over the Chōḷas, nor his annexation of Kāñchī. Here in this *praśasti*, we find not even a casual reference either to Kāñchī or to a deity therein. This silence is indeed conspicuous and difficult to explain in case one prefers to take the record as an indication either to Bhīma's conquest of Kāñchī or to his pilgrimage to this place, either by himself or through a proxy.

What is more important regarding the present *praśasti* is this : It seems to have been composed to commemorate some of Bhīma's benefactions to the temple of a deity known by the name of Bhīmēśvara. The text begins with an interrogative senstence that goes to say that none can be equal to Chōḷa Triṇētra (*i.e.* Chōḍa Bhīma) who had donated something to Bhīmēśvara. Again Bhīma is perhaps described to have set up something, on the date of the *praśasti*, in front of the same deity Bhīmēśvara (Section I, line 7-8). Moreover his gift of jewels etc., to Bhīmēśvara is also perhaps described in the record (Section II, lines 4-7). But at the same time, we should not forget that we do not find or hear about the existence of any Bhīmēśvara temple either in Kāñchī or in its neighbourhood. Therefore, taking into cosideration the expression *Ḍākaraṃbi* found in the record (Section II, line 47), one may logically identify the deity Bhīmēśvara of the *praśasti* with its famous namesake in Drāksharāma in the East Godavari District. For, there are epigraphs at Drāksharāma that call the place by the name *Ḍākaraṃbi* or *Ḍākaremi*.[11]

Therefore in the light of what we have seen so far it will be logical to suggest that the Kailāsanātha temple inscription under question is actually a Drāksharāma

Bhīmēśvara temple *praśasti* of Chōḍa Bhīma. Hence, it can by no means indicate Bhīma's occupation of the Kāñchī region.

Then how to account for the existence of the Drākshārāma temple praśasti at Kāñchī? In order to find a proper answer to the question, one may better bear in mind one important aspect of the literary tradition of Kāñchī. The famous poet *Āchārya* Daṇḍin is known to have been born at Kañchī and to have a close association with the Pallava Court thereof.[12] In his masterpiece on poetics *viz.*, *Kāvyādarśa*, Daṇḍin speaks of his special liking to the mode of a *nāyaka i.e.* a hero of a poem by representing him as a conqueror of a *pratināyaka i.e.*, villain or adversary whose high pedigree, great virtues, scholarship, heroism, etc., are first described in detail. The *Āchārya* says :

> *Vamśa-vīrya-śruṭādīni varṇavitvā ripōr api |*
> *tajjayān nāyakotkarsha-varṇanaṁ ca dhinōti naḥ ||*
> —*Kāvyādarśa* (Poona, 1970) I, 22.

Vidyānātha of Kākatīya Pratāparudra's court also subscribes to this view of Daṇḍin.[13]. Further, that Daṇḍin's *Kāvyādarśa* was quite popular in Tamilnadu particularly during the time of the Chōḷas is vouched for the famous Tamil work *Daṇḍi* Alaṅkāram on poetics.[14] In view of these facts one may suggest as follows :

A Chōḷa *praśastikāra* of Kāñchī who was naturally more at home in Tamil than in Sanskrit and Telugu, perhaps planned to praise his hero Rājarāja I, in the said pattern *viz.*, by narrating in detail the high pedigree, virtues, prowess, scholarship, etc., of Chōḍa Bhīma *i.e.*, the *pratināyaka* and then representing Rājarāja I, the *nāyaka*, as a vanquisher of the former. However, at the same time he appears to have been so loyal to his lord, that he did not himself want to write on the greatness of the *pratināyaka*. So, instead of composing a fresh *praśasti* on Bhīma, the Kāñchī panegyrist perhaps found it very convenient to copy and reproduce complete in Grantha script at Kāñchī, an already available ready-made *praśasti* dated Śaka 903, of that adversary, found somewhere in the Bhīmēśvara temple in Drākshārāma. To this *praśasti* of Bhīma, the Chōḷa panegyrist added his own sentences in Tamil mentioned above. This suggestion seems to get some support from the wrongly spelt Sanskrit and Telugu expressions of the *praśasti* which must have been originally engraved obviously in the Telugu-Kannaḍa script which the Chōḷa *praśastikāra* could not make out satisfactorily.

It may also get further support from the fact that Chōḍa Bhīma is praised in the praśasti as having been born, in his previous birth not only as the Pāṇḍava hero Bhīma, the destroyer of the Kauravas in the Dvāpara-yuga but also as Rāvaṇa in the Trētā yuga (Section I, line 9).

> *......dharaṇīpatiḥ Kṛitayuge, Trētāyugē Rāvaṇaḥ*
> *Bhīmaḥ Pāṇḍu-Pṛithāmajaḥ Kurukula-dhvamsī yugē Dvāparē*

The literary convention of India demands that the hero of a *praśasti* should be praised only as having been born as Rāma in Trētā yuga. There are many instances in Sanskrit literature to this effect.[15] Probably our Chōḷa *praśastikāra* changed *Trētāyugē Rāvavaḥ* of the original into *Trētāyugē Rāvaṇaḥ*, simply to bring home to the readers the fact that Bhīma was not a *nāyaka* of the *praśasti*, but only a *pratināyaka* of it, like Rāvaṇa of the *Rāmāyaṇa*. This idea may better be appreciated if we bear in mind the fact that a copper plate charter of Śaktivarman, Rājarāja's Eastern Chāḷukya ally pictures Chōḍa Bhīma as Rāvaṇa.[16] Further, the Tiruvālaṅgāḍu plates also seems to describe, in a sort of pun, the Andhra king Chōḍa Bhīma as the very Bhīma of the *Māhābhārata* and also as the very club of Rāvaṇa of the *Rāmāyaṇa*.[17]

Thus, the evidences and facts at our disposal seem to indicate that there is no proper basis for the assumption that Chōḍa Bhīma outlived the Chōḷa-Chāḷukya conquest of Vēṅgī in A.D. 999 and that he occupied Kāñchī in A.D. 1001-02.

REFERENCES

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2. *JAHRS.*, Vol. II, pp. 16ff.; Vol. X, pp. 55ff., Vol. XII, pp. 45ff.; N. Venkaturamanaiah, *Eastern Chālukyas af Veṅgī*, (1950). pp. 199ff.
3. *The Colas* (1st Edn.), pp. 217ff.
4. *Ibid.* (2nd Edn.), pp. 180-81.
5. *Ibid.*, p. 192.
6. See for example No. 39 of *ARSIE.*, 1888; Nos. 66, 71 of *ARSIE.*, 1923; No. 54 of *ARSIE.*, 1898, No. 201 of *ARSIE.*, 1901; No. 78 of *ARSIE.*, 1921; No. 139 of *ARSIE.*, 1923; etc.
7. K.A.N. Sastri, *Op. cit.* (1st Edn.), p. 208; *Ep. Ind.*, Vol. XXXVI, pp. 197ff., Text lines 40ff. and 49ff. See note 16 below.
8. See for example Nos. 1, 2, 3 of *ARSIE.*, 1906; Nos. 245, 166 of *ARSIE.*, 1912.
9. See *e.g. Ep. Ind.*, Vol. XXXI, pp. 101ff.; Vol XXXII, pp. 103ff.
10. *Ep. Ind.*, Vol. XXXI, pp. 94ff., 99ff.
11. *SII.*, Vol. IV, Nos. 1060, 1030, 1102, 1104, 1108, etc.
12. See the *Avantisundarī*, Trivandrum Sanskrit Series, No. 172, Introduction, pp. 4-5.
13. The *Pratāparudriya*, (Madras, 1970), 1, 68.
14. K.A.N. Sastri, *History of South India* (4th edn.), p. 381.
15. See, *e.g.*, the *Pratāparudrīyu*, I, 20.
16. Cf. *Īśaḥ saṁyati Rāvaṇa-pratinidhiś=Chāḷukya Nārāyaṇen-āpāsta=dvisetāpi yena nidhanaṁ śrī-Chōḍa Bhīmādhipaḥ*
    The Telugu Academy plates of Saktivarman, *Ep. Ind.*, Vol. XXXVI, pp. 131ff. Verse 22.
17. Cf. *Daṇḍēna Bhīmēna yudhī pravīṇō yad Rājarājō nihatō madākhyaḥ*
    tad Bhīma nāmānam arandhraṁ Andhraṁ hanmi-ti daṇḍena jaghāṇna taṁ saḥ. ||
    SII., Vol. III, p. 398, verse 82.

13

A NEW TAMIL INSCRIPTION FROM BĀHŪR, PONDICHERRY

L.K. Srinivasan
and
Shivananda Venkata Rao*

Śrī Mūlanāthasvāmi temple also known as Śrī Mūlēśvara in inscriptions at Bāhūr can be assigned to the transitional phase between the late Pallava and Early Chola epochs. Axially the temple consists of *Garbhagṛiha*, *Antrāḷa*, *Ardha-maṇḍapa* and *Mahāmaṇḍapa*. The original construction—*Garbhagṛiha*, *Antarāḷa* and *Ardha-maṇḍapa*—stands on a raised plinth which looks as if it is supported on elephants. The *mahāmaṇḍapa* and other structures are later additions including the brick and stucco superstructure above the main shrine.

The palce Bāhūr figures in the copper plates of Pallava Nṛipatuṅga[1] as *Vidyāsthāna*'. Apart from this, there are good number of inscriptions of the Rāshṭrakūṭa king Kṛishṇa III[2] and of the Chōḷa kings like Rājarāja,[3] Rājēndra I,[4] Kulōttuṅga I[5] and Vikramachōḷa,[6] which attest to the importance of the temple.

The inscription noted, now is on the west wall of the temple and was revealed sometime back while executing conservation works in this temple in the form of removing the accretionary structures which stood abutting the wall on either side of the *bhadra* niches containing the sculptures of Dakshiṇāmūrti and Viṣṇu, on the southern and western face of *Vimāna* respectively.

The inscription is in Tamil languge and characters of 11th century and dated in the 16th regnal year of Chola Rājēndra I (A.D. 1012-44).

In records the deliberations of the Assembly (*perunguṛipperumakkaḷ*) of Vāhūr regarding the collection of the tax called *ēri-āyam*. The village Vāhūr also known as *Aḷagiya Śōḷachchaturvēdi mangalam* after the title of Rājēndra I in *Pavitramāṇikka-Vaḷanāḍu* in *Jayangoṇḍa Śōḷamaṇḍalam* was administered by an assembly through a number of Committees or *Vāriyams* like *Kaḷiṅgavāriyam*, *Samvatsaravāriyam*, etc.

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The assembly is said to have met at *Aḷagiva Śōlanambalam*[7] of the village on the night of Friday śu. 1 in the month of *Dhanus* in that year corresponding to 1st December A.D. 1027. It was attended by *Kappūrar—Uḍaiyār Nīlan Veṇkādanār*, the officer who adiministered the (Vagai Seyginṛa) Nādu. The assembly took an important decision of authorising the Lake Committee (*ēri-vāriyam*—Cheyyar) to collect the tax *ēri=āyam* in kind *i.e.*, paddy from the tenants coming from outside and cultivating crops like paddy *varagu*, sugarcane, seasamum, etc., in the village at the rate of two *tūṇi* per *mā* per *season*.

It also states that the paddy collected from *Eri-āyam* was to be measured out by Gangaikoṇḍa Śōḷan marakkal of Eight *nāḷi*. The measurement *Gaṅgai Koṇḍa Śōḷan marakkāl* was named after Gangai Koṇḍa Śōḷa *i.e.*, Rājēndra after his renowned conquest of Ganges in his 10th regnal year. *Mā* is a unit of measurement and is stated to be equivalent to 256 *kuḷi* measured by the 12 span rod.

The inscription further extols that the residents of the village Vāhur within the age limit of 10 and 80 were to be enumerated excluding the untouchables and are required to have the earth dug up from the pit measuring 2 *kol* × 2 *kol* × 1 *kol* annually. Fines are to be levied from the defaulters and also from the defaulting administrators, among the members of the Lake Committee. It further says that the *ērikkaṇakkan*, the accountant is to be paid one *padakku* of paddy from the *ēri-āyam*.

The record is an interesting one in several respects :

(1) It specifically makes provision for levy of fine from the defaulting admistrators of the Lake Committee which implies that the Committee member did take advantage of his being member of the Committee by not conforming to the decision of the Committee.

(2) Though it can be assumed as a normal practice that the king's officers were attending the village assemblies as royal representatives[8] but in the present case there seems to be some intervention of the higher authorities in the village administration giving the official decision regarding the repairs to the lake and prescribing the punishment to the defaulting administrators of the Lake Committee.

(3) It is noteworthy that the decision relates to the collection of tax from the tenants coming from outside only and not to the local cultivators and further irrespective of whatever crop is cultivated in the land, the tax was to be paid in the form of paddy only.

(4) The tax was not proportionate to the produce but to the area of the land.

(5) Instead of a member from each family to dig and remove specified quantum of earth, the dccision makes it incumbent on every one above the age of 10 and below the age of 80 to work and to remove the specified quantity of earth annually.

(6) The local administration was charged with the responsibility of keeping the irrigation tank under proper commission by periodical desilting.

(7) The order was engraved 48 days after the decision was taken, *i.e.*, the decision was taken on 131st day and engraved on 179th day.[9]

(8) The exclusion of the untouchables in the desilting operation is particularly noteworthy.

(9) The record mentions three members of the Committee by name as follows :

(1) Pakkai—Somanambi Kramavittan
(2) Pāvaikāl—Ninṛa Nambi Battan
(3) Nelvangam Śrī Kṛishṇa Kramavittan

(10) The engraver of the record is Uttamapriyan.

REFERENCES

1. *Ep. Ind.*, Vol. IV, pp. 180-81.
2. *SII.*, VIII, Nos. 799, 802-804, 810.
3. *Ibid.*, Nos. 805 and 808.
4. *Ibid..* Nos. 798 and 801.
5. *Ibid.*, No. 813.
6. *Ibid.*, No. 806.
7. The villages is called Vāhūr alias Alagia Chōla Chaturvedimangalam; the *ambalam* is called Allagia Chollan probably named after this grand father Parāntaka II Sundara Chōla.
   There are examples (*Ep. Ind.*, Vol. XI, p. 298) wherein the names of Cheris of Rājarāja Chaturvedimaṅgalam are named after the titles of the king as well as his father, his mother, his sister and his wife, etc.
8. *Ep. Ind.*, XXI, No. 27.
9. Information from Shri N. Sethuraman, Kumbakonam.

14

RAJPUR COPPER PLATE GRANT OF PARAMĀRA NARAVARMAN

K.V. RAMESH AND S. SUBRAMONIA IYER*

The copper plate grant edited here was originally discovered in the village Rajpur in Rajpur Tahsil, West Nimar District, Madhya Pradesh. It is at present deposited in the State Archaeological Museum at Indore. The plates were copied sometime in November 1974 and they have been noticed in the *Annual Report on Indian Epigraphy* for the year 1974-75 as No. 8 of Appendix A.

The set consists of three copper plates strung together to a copper ring, the ends of which have not been soldered and affixed to any seal. Each plate measures 19.9 cm in length and 28.3 cm in breadth. The average thickness of each plate is .2 cm. The rims of the plates have been slightly raised to protect the writing. The diameter of the hole through which the ring passes is approximately 1 cm. The weight of all the three plates together is 2.753 kg while that of the ring is 139 gm. Both the first and the third plates have been engraved on only one side. The second plate, however, bears writing on both the sides.

The characters employed are Nāgarī of the 12th century A.D. and language is Sanskrit. The record abounds in many types of orthographical peculiarities and mistakes, most of them met with in one of the other Nāgarī charter of the period and dynasty in question. Besides, the imperfect language equipment of the composer and the illiteracy of the engraver have resulted in quite a few wrong writings which can, however, be easily corrected in the known context of thier occurrence. Corrections for these numerous errors of omission and commission have been suggested in the body of the text or in footnotes while editing the charter below.

The record is partly in prose and partly in verse. It bears two dates, both of them given in words as well as in numerals. The first date (lines 16-17) is Vikrama 1148, Pausha ba. 15, *sūrya-grahaṇa* on which the grant was issued. The second date (lines 32-33 and 53) is Vikrama 1177, Chaitra śu. 9, Thursday on which the grant was confirmed. While the details of the first date are irregular but obviously fell in A.D. 1091-92, the details of the second date correspond to A.D. 1120, March 11, the *tithi* having ended the previous day.

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The charter beging with the wellknown *Siddham* symbol followed by two strokes (line 1). Then follow (lines 1-3) the two benedictory verses in praise of Śiva which are generally found in other Paramāra grants. The charter then procceds to trace (lines 3-8) the genealogy of the Paramāra king Naravarman beginning from Siṁdhurāja, ascribing to all of them the usual sovereign titles of *Paramabhaṭṭāraka*, *Mahārājādhirāja* and *Paramēśvara*. After describing the successive kings, Bhōjadēva and Udayāditya, the ruling king Naravarmadēva is mentioned (lines 7-8). Then is introduced one *Rāṇaka* Raṇadhavaladēva who is stated to be enjoying the fief of Purṇapathaka-1048 by the grace of the imperial Paramāra king Naravarman (lines 8-10). The charter then states (lines 10-36) that while *Rāṇaka* Raṇadhavaladēva was camping at Amarēśvaratīrtha, he granted (on the first of the two dates referred to above) two villages named Mahudahā and Āṁtastavā, situated in the *bhukti* of Madhumatī-700 which was a *pratijāgaraṇaka* in the Dakshinapathaka bounded on the west be Pāṇōnī-350 and included in Pūrṇṇa-pathaka, to the brāhmaṇa Nāyaka Mādhavadēvaśarmman, son of *Tripāṭhi* Vāvaṇa and grandson of *Tripāṭhi* Pāvaṇāha who belonged to Kauṇḍinya-gōtra and the three *pravaras* of Kauṇḍinya, Vāsishṭha and Maitrāvaruṇa and Āruṇī-śākhā, who was a resident of Lāḍ-ānvaya and an emigrant from Paṁchaūra-mahāsthāna. It is stated (lines 18-20) that the grant was made by the *Rāṇaka* for the merit of his parents and his own self after taking bath at the confluence of the rivers Rēvā and Kapilā and aftar giving offerings of Sesamum seeds at the sacrificial fire, offering obeisance to five priests as well as offering *pūrṇ-āhuti* and circumambulating thrice the sacred cow. Then follow (lines 21-24) to verses which speak of the impermanant and transient nature of material objects. Then follows the grant portion proper (lines 24-32) containing the name of the donee and the names of the villages granted. Then follow (lines 32-33) the details of the second date, discussed above, and it is then stated (line 33) that the grant was registered (*nibaddha*) by *mahākshapaṭala* Kuntārya and *bhāṇḍāgara Śrījayē*. Further, the grant was issued in the form of the charter by the *mahākshapaṭala* (lines 33-34). Though his name is not explicitly mentioned, it is quite apparent that Kuntārya is meant since he is mentioned in the immediately preceding portion. It is further stated (lines 34-35) that the details of the grant were conveyed to the imperial Paramāra king Naravarman. But the charter is silent in not disclosing the identity of the person who presented the grant to the king for his ratification. The grant was subsequently ratified by the king and orders were passed for the grant, along with the usual privileges and exemptions, of the two villages to the donee under reference for his own and his posterity's enjoyment (lines 35-38). This is followed by a statement calling upon future rulers to honour and protect the grant (lines 38-40). This is followed (lines 40-52) by the usual eight imprecatory verses. The second date, already once given in lines 32-33, is then mentioned in figures and words (line 53). The *dūtakas* were the *purōhita* Vāmanasvāmin and *rājaputra* Kumarapāla (lines 53-54). Neither the name of the composer nor that of the writer of the grant is mentioned. In line 55 are given some abbreviations the expansion for which are not known for certain. The charter concludes with the sign manual of the king (line 56) On the right side of the third plate is a representation of Garuḍa in relief and the name Garuḍa is engraved just above the figure.

This charter is very important in as much as it contains the earliest (Vikrama 1148) as well as the latest (Vikrama 1177) known epigraghical dates for the reign of king Naravarman as against Vikrama 1151 (A.D. 1094) and 1167 (A.D. 1160), his hitherto known earliest and latest dates.[1] Equally interesting is the long interval of about twenty nine years taken for the confirmation of the grant for which, however, no reasons are furnished in the grant under review.

The rivers Rēvā and Kapilā are well known and they are mentioned in other Paramāra charters[2] as well. River Rēvā is the well known river Narmadā and river Kapilā[3] has been identified with a stream now known as Kōlār which joins the Narmadā near the Amarēśvara. Pūrṇṇa-pathaka finds a reference in two other Paramāra copper plate charters viz. the Gaonrī copper plate Inscription of Vākpatirājadēva (Vikrama 1043),[4] and the Māndhātā grant of Jayasiṁha (Vikrama 1112).[5] H.V. Trivedi identifies it with the modern village of Punāsā, situated about 35 km east of Māndhātā on the Narmadā.[6] Dakshiṇa-pathaka, Mādhumatī 700, Pāṇōṇī 350 Paṁchaūra-mahāsthāna and the gift-villages Mahudahā and Āṁtastavā cannot, however, be identified. In Māndhātā copper plate grant of Dēvapāla, Vikrama 1282,[7] there is a reference to a *pratijāgaraṇaka* called Mahuaḍa which evidently derived its name from the village of the same name. If so, could the grant village Mahudahā in the present grant be identical with Mahuaḍa of the Māndhātā copper plate grant of Dēvapāla referred to above notwithstanding the slight difference in the spelling of these names? This appears to be more probable judging from the geographical details and location of the place given in both the charters. Amarēśvara-tīrtha is no doubt identical with modern Māndhātā.

The *dūtaka, purōhita* Vāmanasvāmin figures in the same capacity in a later charter *viz.* Ujjain copper plate grant of Yaśōvarman, Vikrama 1192.[8] *Rājaputra* Kumarapāla is, however, not known from any other Paramāra charter.

TEXT[9]

[Metres : Verses 1-2, 4-5, 9-10 *Anushṭubh*; verses 3, 7, 11 *Vasantatilakā*; verse 6 *Indravajrā*; verse 8 *Śālinī*; verse 12 Pushpitāgrā].

FIRST PLATE

1. Siddham[10] || Svasti jayō=bhyudayaś=cha ! Jayati Vyōmakēśō—sō (sau) yaḥ sarggāya vi(bi)bha-

2. rtti tāṁ(tām) ! Aiṁdavīṁ si(śi)rasā la(lē) khā[ṁ*] jagad-bīj-āṁkur-ākṛiti[ṁ*] l [l 1*] Tanvantu dha(vaḥ) śāsataiḥ[11] Kalyāṇam=a—
3. nisaṁ(śaṁ) jaṭāḥ l Kalp-āṁta-samay-ōddāma[ta*]ḍid-valaya-piṁgalāḥ l [l 2*] Śrī mahārāyāḥ(ja)-saga(ma)-
4. sta-[rāj-āva]lī-māl-ālaṁkṛita-paramabhaṭṭāraka-mahārājādhirāja-paramēsva-(śva)ra-
5. śrī-[Siṁdhu]rājadēva-pādanudhyāta-paramabhaṭṭāraka-mahārājādhirājā-paramai(mē)sva(śva)-
6. ra-śrī-Bhōjadēva-pādānudhyāta-paramabhaṭṭāraka-mahārājādhirāja-paramēsva-(śva)ra-
7. śrī-Udayādityadēva-pādānudhyāta-parama-bhaṭṭāraka-mahārājādhirāja-paramēsva(śva)-
8. ra-śrīman=Naravarmmadēvaḥ kuśalī l Tat-pāda-padma-prasād-āvāpta-Pūrṇṇa-pathak-āshṭā-cha-
9. tvāriṁśa-sahasr-ādhipatyaṁ samasta-prarā(śa) stōpēta-samadhima(ga)ta-paṁcha-mahāśabd-ālaṁ-
10. kāra-virājamāna-mahāmaṇḍalēsva(śva)ra-śrī-Raṇadhavaladēvaḥ Pūṇam[12]-pathak-āṁtaḥpāti-
11. Pāṇōṇī-s=ārddha-sa(sa)ta-traya-pratibaddha-paśchimāyāṁ Madhumati-sapta-sa(śa)ta-bhōgi asmi-
12. nn=ēva pratijāgaraṇakē Dakshiṇa-pathakē sva-bhuktau Mahudahā-grāma-Āṁtastava-grā-
13. mayō[ḥ*] samasta-daṁḍanāyak-ādhishṭhāsa(pa)ka-karaṇa-purusha-sa(śa) yyāpāla-draṁga-varishṭaka-pra-
14. bhṛiti samasta-niryukta[13]-purushān brāhmaṇ-O[ttā]rān pratinivāsi-vishaika[14]-paṭṭakila-

SECOND PLATE : FIRST SIDE

15. janapadādīn samādisapastu[15] va[ḥ*] saṁviditaṁ yathā asmābhiḥ śrī-Amarēsva (sva)ra-tī-
16. rthasthitēḥ(taiḥ) śrī-vikrama-kālā[d-*a] shṭyē(shṭa)-chatvāritrṁsa(śa)ti(ty=a) dhik=aikādaśa-sa(śa)ta-saṁvatsasa(r-ā)ntarggavā(ta)-
17. Pausha-vadi-paṁchadesyāṁ(śyāṁ) saṁvat 1148 Pausha vadi 15 saṁjāta-sūryya-grahaṇa-parvvaṇi parvva-
18. kālam=āśritya śrīmad=Rēvā-Kapilā-nna(na)-dyōḥ [saṁ]gamam=āsādya snātyā(tvā) dhauta-vāsasī pari-

19. dhāya jagataḥ patiṁ Umāpatiṁ saṁpūjyē(jya) til-āhutīr=jjātavēdasi hutvā paṁchaśrōtirabhi-

20. dhyāya[16] pūrṇṇ-āhutiṁ hutvā kapilaṁ(lāṁ) gāṁ triḥ pradakshiṇīkṛitya saṁpūjya cha saṁsārasy=āsāratāṁ pa-

21. ri[jñā]dha(ya) tathā hi l Vāmā(t-ā) bhra-viva(bhra)mi(ma)m=idaṁ vasudh-ādhipa[tyam]=āyā(pā) nu(ta) mātra-madhurō vishayā (y-ō)-

22. pabhōgaḥ l prāṇās—triṇ-āya(gra)-jala-biṁdu-samā naraṇāṁ dharmmaḥ sakhā param—ahō para-lōka-

23. mā(yā)nē l [l 3*] api cha l Bhramat-saṁsāra-chakr-āgra-dhār-ādhārām—imāṁ śriyaṁ(yam) l prāpya yēna cha [da*]dute[dus—tē] shāṁ pa-

24. śchātā (ttā)paḥ [pa*] raṁ phalaṁ(lam) l [l 4*] Iti-jagatō vima(na) sva(śva)ra[ṁ*] svarūpam—ākalayy—ādṛishṭa-phalam– aṁgīkṛitya chaṁ-

25. dr-ārkk-ārṇṇava-kshiti-samakālaṁ[17] yāvat=paramā(yā) bhaktyā Lāḍ-ānvāyē Paṁchaüra-mahāsthāna-

26. vinirggata-Kauṁni(ḍi)nya-gōtrāya Kauṁni(ḍi) nya-Vāsishṭa-Maitrāvara(ru)ṇu(ṇa)-trī-pravarāya Sēṇi[18]-śā-

27. kh-ādhyāya(yi)nē tripāṭi(ṭhi) l Pavaṇāha-pautrāya tripāṭi(ṭhi) l Vāvaṇa-putrāya Nāyaka-Mādhava-

28. dēva-sa(śa)rmmaṇē vrā(brā)hmaṇā ya upari-likhita-Mahudahā-grāma-Āṁtastavā-mrā(grā)mayō-[ḥ*][19] sa-

29. vṛiksha-mālākulaś–chatuḥ-kaṁkaṭa-viśudhaḥ(ddhaḥ)khany-ākara-nidhi-niks-hēpa-sahita-ārāma-vā-

SECOND PLATE : SECOND SIDE

30. ṭik-āmalaka-ghāṇaka-samast-ādāya-talādy=ādi sarvv-ādāyair-Mupētaś—charaṇau prakshā-

31. lya mātā-pitrōr=ātmanaś=cha puṇya-yasō(śō)si(bhi) [vṛi]ddhayē sā(śā) sanaṁ kṛitv=ōdaka-pūrvva-

32. kathanēna pradattaḥ l satavaṁrity=adhik=[19] aikādaśā-śata-saṁvatsar-āntarggata Chaitra-śu-

33. di navamyāṁ mahākshapaṭalā(la)-Kuntārya-Śrījayē-bhāṁḍāgarai[r*]—niva(ba) ddhā[20] puna[ḥ*] mahākshapa-

34. ṭala[21] sā(śā)sana[ṁ*] kārayitvā āgāmibhadra nṛipati parijānīya[22] mahārājādhirā-

35. ja-śrīma[n*]=Naravarmmadēva-pādān l[17] vijā(jñā)pya suniśchitya punastha(s=ta)d-ādēśāt [grā]ma(mau)

36. dvau dattaḥ(ttau) l Udātyatyadyamāna[23]-bhāga-bhōg-ādi-kara-hiraṇyādija(ka)dēva-vrā(brā)hmaṇa-bhu-

37. kti-varjjam=ājñā-śravaṇavidhēyau(yai)r=bhūtvā bhavadbhir=amu[shmai] tath=aiva [bhava*]-dīya putra-pautra-pra=

38. pautr-ādi-saṁtānāya sa(ma)ryādā samupabhē(nē)tav-yaṁ l sānā(mā)nyam daibhā[24] puṇya-phalaṁ vu(bu)-dhā(dhvā)=

39. smad=vaṁsa(śa) jair=atyai(nyai)r=api bhāvi bhōktṛibhir=asmat=pradatta-dharmm-ādāyō=yam=anuma[ṁ*]tavya[ḥ*]

40. pālanīya[ś=cha] l uktavatat[25]l Va(Ba)hubhir—vvasuddhā(dhā) bhuktā rājabhiḥ Sagar-ādibhiḥ l

41. yasya yasya yadā bhūmis=asya tasya tadā phalaṁ(lam) l [l 5*] Yān=īha dattāni purā narēṁdrai[r*]=ddā-

42. nāni dharmm-ārtha-yaśaskarāṇi l nirmmālya-vānti(ta)-pratimāni tya(tā)ni kō nāma śā(sā)-

43. dhuḥ puna[r=ā]dadīta l [l 6*] Asmat-kula-kramam=udāram=udāharadbhi[ḥ*] sa(a)nyē(nyai)ś=cha dāta(na)m=idam=abhya-

44. numōdanīyaṁ(yam) l Lakshmyās=taḍid=valaya-vu(bu)dvu (dbu)daṁ(da)-chaṁchalāyā dānaṁ phalaṁ para-pa(ya) ṇaḥ(śaḥ) pari-

THIRD PLATE

45. pālanaṁ cha l [l 7*] Sarvvān=ētānu(n) bhāvinaḥ pārthivēṁdrā[n*] bhūyō bhūyō yāchatē Rāmabha-

46. draḥ l sāmānyō=yaṁ dharmma-sētur=nṛipāṇaṁ(ṇām) kālē kālē palaniyō bhavadbhiḥ l [l 8*] Sva-dattāṁ pa-

47. ra-dattāṁ vā yō harētu(ta) vasuṁdharāṁ (rām) l shashṭi-varsha-sahasrāṇi vishṭāyāṁ yā(jā)yatē kṛimiḥ ll [9*]

48. Sva-dattāṁ para-dattāṁ vā yō=nupālayatē mahīṁ l shashṭi-varsha-sāhasrāṇi svē(sva)rgga-lōkē

49. mahīyatē l [l 10*] Mad-vaṁrā(śa)jāḥ para-mahīpati-vaṁśajā vā pāpad=apēta-[ma]nasō bhuvi-bhā-

50. ki(vi) bhūgāḥ(pāḥ) l yē pālayaṁti mana(ma) dharammam—ahaṁ nu mē(tē)pāṁ(shāṁ) pād-āraviṁda-yugalaṁ si(śi)rasā-na-

51. nāmi [ll 11*] Iti Kamala-dalaṁ(l.āṁ)va(bu)-viṁ-(biṁ)du-lōlāṁ śriyam=anuchiṁtya manushya-jīvitaṁ cha ll (l)

52. sakalam=idam=udāhṛitam cha va(bu)dhvā va(na) hi purupai(shaiḥ) para-kīrnna(tta)yō vilōpyā[ḥ ll 12*] iti l

53. Saṁvat 1177 Chaitra-śudi 9 gurau ll dū° purōdi(hi)ta-Śrī-Vāmanasvāmi-ll[26] Rāja-

54. putra-Kumarapālau l maṁgalaṁ mahāśrī[ḥ*] ll Garuḍa ll

55. ra śrōh ll sō l saṁ ll ndra[27] rā[28] l 6 śayyā[29] 3 ll

56. sva-[ha*]stō=yaṁ mahārājadhirāja-paramēsva(śva)raśrīman-Naravarmmadēvasya ll

REFERENCES

1. *The Paramāras* (P. Bhatia), p. 114.
2. See *e.g.* Mandhātā copper plate grant of Jayavarman II, Vikrama 1317, *CII.*, Vol. VI, p. 200 f.
3. This river also finds mention in the Dewas Copper plate Inscription of Naravarman, Vikrama 1162 (*Ibid.*, p. 102f.) and the Sehore Copper plate Inscription of Arjunavarman (*Ibid.*, p. 168f.).
4. *Ibid.*, p. 24f.
5. *Ibid.*, p. 61f.
6. *Ibid.*, p. 26, f.n. 2.
7. *Ibid.*, p. 175f.
8. *Ibid.*, p. 126f.
9. Fromimpressions.
10. Expressed by a symbol.
11. *Smarārātēḥ*
12. Read *Pūrṇṇa-*.
13. Read *nivukta*.
14. Read *vishayika*.
15. Read *samādiśaty=astu*.
16. Read *paṁcha-śrōtṛīn=abḥivādya-*.
17. The stroke is redundant.
18. The intending reading seems to be *Āruṇi*.
19. The other details of date, *viz*. Chaitra śu. 9 are the same as mentioned in line 53 of the text above. Hence, on the assumption that the dates mentioned in lines 32-33 and 53 are the same the jumble of letters may be amended to read as *sapta-saptaty-adhik-*.
20. Read *nibaddhaḥ*.
21. Read *mahākshapaṭalena*.
22. These three words following *kārayitvā* are redundant.
23. Read *tatr-ōtpadyamāna*.
24. Read *ch=aitat*
25. Read *uktam ch=aitat*
56. These strokes are redundant.
27. Can it be an abbreviation for *draṁgavarishṭaka* mentioned earlier (line 13) in the grant?
28. Probably an abbreviation for *Rājaputra*.
29. Probably it stands *śayyāpāla* mentioned earlier (line 55) in the grant.

15

ŚĪRKŪRMANĀTHA TEMPLE INSCRIPTIONS : A STUDY

S.S. Ramachandra Murthy*

Śrīkūrman is one of the famous Vaishṇava holy places in India and is located at about 25 kms from Śrīkākuḷam, headquarters of the district of the same name on the east coast of Andhra Pradesh. The village derives its name from the temple of Śrīkūmanātha located therein. The temple is considered as unique in that it has an anthropomorphic figure of god Vishṇu in the form of tortoise. It can be dated back as early as C. A.D. 900 and regarding its stylistic affiliations it is considered as an Eastern Chāḷukyan temple in the border between Āndhra and Kaliṅga.[1] More than 175 inscriptions have so far been discovered from this temple and published in *Epigraphia India*, Vols. V and VI and *South Indian Inscriptions*, Vol. V (Nos. 1150-1338). These epigraphs are very important since they bring many interesting facts to light not only of political, economic, social and cultural history of the region in which the temple it situated but also of the architectural history of the temple itself. The inscription is important for political history, were already discussed elsewhere and hence the other aspects of these records are taken up for discussion in the following pages. The earliest of these epigraphs is dated A.D. 1113 while the latest belongs to the 19th century. Thus these inscriptions present a graphic picture of the Kaliṅga country covering a long period of seven centuries.

Firstly we shall consider the additional structures constructed to the temple. The first addition, according to the available epigraphs seems to have been made by the celebrated Mādhva teacher Naraharitīrtha, a direct desciple of the Ānandatīrtha.[2] An inscription (*Ep. Ind.*, VI, pp. 260 ff.) dated Śaka 1203 (A.D. 1281) states that Naraharitīrtha built a temple (*i.e.* shrine) in front of the lord Kamaṭha and consecrated therein the deity Yōgānanda-Nṛisiṁha, the bestower of bliss (*śarmma-pradaḥ*). In view of the name given to the deity and the adjective *śarmma-pradaḥ* the image may be worth studying for its iconographical features. Another inscription (V, 1179),[3] dated A.D. 1283, refers to the construction of *tiruchuṭṭumālya-bhavanamu* in black granite stone (*nīla-śilā-mayam*) to the temple of Śri-Kūramanātha.

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The sage Naraharitīrtha, referred to above, is also stated to have consecrated the images of Sītāparamēśvari and Lakshmaṇa in A.D. 1293 (V, 1172). Subsequently the structural construction activities seem to have become less frequent. Nearly after a lapse of more than 150 years a *ḍōlā-maṇḍapa* was added to the temple (V, 1201). Further, an inscription (V, 1312), dated A.D. 1599, records that an official of Mohammad Quli Pādshāḥ defeated Mukundabāhubalēndra and that he destroyed the temple of Kūrmanātha at Kūrmam in Kaliṅga-sīma and constructed a mosque. Another inscription (V, 1260), dated five years later (A.D. 1604) records that a certian Aśvārāya, having noticed that the worship in the Kūrmanātha temple was discontinued for a few years, granted some lands and income from taxes to resume the daily food offerings and other services in the temple. This clearly shows that the temple had suffered some damage in A.D. 1599 and that the worship in the temple was discontinued for some time.

As regards the gifts made to conduct various services in the temple it deserves to note that the nature and number of gifts vary from century to century. The data collected in this connection may be tabulated as follows :

TABLE 1

Grants/Services	*12th cen.*	*13th cen.*	*14th cen.*	*15th cen.*	*16th cen.*
Lamps	31½	44½	16½	10	1
Money	90 *mā*	420 mā and 4 chi	308 mā and 4 chi	10 mā; 49 ṭaṅkas	Nil
Land (No. of occasion on which land is granted)	2	12	4	3	1
Cows	Nil	363	438	388	50
Sheep	50	280	175	400	Nil

(No gifts are made during the 17th and 18th centuries while only one instance of land grant is recorded during the 19th century)

By the above table it is clear that the temple received maximum number of gifts during the 13th-15th centuries and that there was a sudden drop in the gifts during the 16th century. In this connection it must be remembered that the number of inscriptions subsequent to the 15th century is comparatively much less. Again, from the above table it is evident that the most favoured gift was *dīpa*. This was of two types, *viz. akhaṇḍa-dīpa* (perpetual lamp) and *dīpa* to be lit only during specific times like *sandhyā-dīpa* (twilight lamp). A study of the gifts made to maintain the *dīpas*, both *akhaṇḍa* and occasional, reveals many interesting points regarding the economic history of the region in question as also the richness of the temple.

To maintain the *dīpas* donations were made both in cash and kind. However, the type and quantity varied from period to period. The table given below provides an idea about the number of lamps and donations made to maintain them during different centuries.

TABLE 2

Type of Gifts	*12th cen.*	*No. of lamps*	*13th cen.*	*No. of lamps*	*14th cen.*	*No. of lamps*	*15th cen.*	*No. of lamps*	*16th cen.*	*No. of lamp*
Cows	Nil	—	310	12	375	9	388	6	Nil	Nil
Sheep	50	1	280	6	175	2½	400	4	Nil	Nil
Buffaloes	Nil	—	12	1	Nil	—	Nil	—	Nil	Nil
Money & Tax	Tax on oil press;* 90 *mā*	19	52 *mā* and 2 *chi*	10½	76 *mā*	4	Nil	—	Nil	Nil
Land (No. of instances)	1	1	6	6	Nil	—	Nil	—	1	1

*Amount of tax in cash is not specified.

It may be observed from the above table that the maximum number of lamps were donated during the 13th century while in the following centuries the number came down drastically. Further it may be noted that during the 12th century the number of cows gifted to maintain the lamps is absolutely nil while in the following centuries this number registered gradual progress. We will advert to this point a little later.

During the 12 century money was preferred for donation to maintain the *dīpas*. From the epigraphs of this century we come to know that an amount of 5 *māḍas* was fixed as donation for maintaining a perpetual lamp and that out of 21 occasions on which the perpetual lamps were donated on as many as 19 occasions it was money that was paid for their maintenance. However, during the 13th century the picture is little different. For keeping the perpetual lamps burning cows, sheep, buffaloes and land were also granted apart from money. Cows were granted on 12 occasions while money was granted on 11 occasions. Land and sheep were granted on six occasions each while buffaloes were granted only one occasion, their number being 12. (It is curious to note that this is the lone reference we have for donation of buffaloes).

During the 13th century till A.D. 1233, cows were gifted on two occasions for maintaining the perpetual lamps and on each occasion the number of donated cows was 30. However, on all subsequent occasions the number of the cows required for burning one perpetual lamp seems to have been fixed as 25. Only on one occasion 15 cows and 30 sheep were granted together for burning one *akhaṇḍa-dīpa* (V-1185).

It is interesting to note there was absolutely no change in the amount of money to be paid for maintaining a perpetual lamp and that it remained to be 5 *māḍas* as was the case during the preceding century. There was instance of donating 2 *māḍas* and 5 *chinnas* for maintaining half-a-perpetual lamp (*ara-dīpamu*) (V-1296).

As has been stated above on six occasions sheep were granted for burning the perpetual lamps. Out of these six occasions on five, sheep alone were gifted and the number of sheep donated for maintaining each lamp was 50. That is, as in the case of money in the case of sheep also there was no change in the prescribed number to be gifted for burning one *akhaṇḍa-dipa*. On one occasion 15 cows and 30 sheep were gifted as mentioned above.

It may be observed from the above table that gift of land was equally favoured like that of sheep for maintaining perpetual lamps. The extent of land granted for this purpose varied from mere 10 *tūmus* to 1 *puṭṭi* and 10 *tūmus*, obviously depending upon the yielding capacity of the land.

During the 14th century as many as 16½ perpetual lamps were gifted to the god Śrīkūrmanātha. Of these, cows for 9 lamps, money for 4 lamps and sheep for 2½ lamps were gifted while we do not have information about the gift made to the remaining one lamp. It is very interesting to note that there is not even a single instance of land being granted for maintaining perpetual lamps during this as well as the following century. It is further interesting to note that during the 14th century we find variation in number of cows, sheep and amount of money granted to maintain each lamp. In the case of cows the difference is exactly double. On six out of nine occasions the number of cows granted for each lamp was 50 while in case of each of the remaining 3 the number was 25. This kind of variation can be seen in the case of seeep too. The number of sheep donated for burning an *akhaṇḍa-dīpa* remained to be 50 till the first half of the 14 century while during the second half and throughout the 15th century the number seems to have been raised and fixed as 100 as evidenced by inscriptions (V, 1218, 1180, 1184, 1176 and 1239). This shows that as in the case of cows in the case of sheep also the difference was exactly double. As has been stated above this kind of variation can be seen in gifts made in cash also. For one lamp 6 *nishkas* (*i.e. māḍas*) were gifted while on a subsequent occasion 20 *māḍas* were gifted for one lamp. It is worth mentioning that an inscription dated A.D. 1357 (V, 1154-55) specifically states that 50 *gaṇḍa-māḍas* were gifted in lieu of 50 cows for maintaining two perpetual lamps (*akhaṇḍadīpa-dvayānaku.........ĕṁbhayi gōvulaku eṁbhayi gaṇḍa-māḍalu peṭṭenu*).

During this century for the first time a specification regarding the supply of ghee for maintaining a perpetual lamp was introduced. It was stipulated that the person to whom the gift cows (or sheep) were entrusted should supply one *aḍḍa* of ghee every day to the temple.[4]

During the 15th century only 10 lamps were donated. Of them for maintaining six lamps cows were granted while for the remaining sheep were gifted. The number of cows granted for each lamp was 50. Only on one occasion as many as 138 cows were gifted for the same purpose (V, 1165, dated A.D. 1460). However, the stipulated quantity of ghee to be supplied was the same as that stipulated for a gift of 50 cows. During the 16th century only one lamp was donated and land was gifted for its maintenance.

It is clear from the inscriptions that whenever money was granted for burning an *akhaṇḍa-dīpa* only the interest (*poli*) accrued on it was utilized for the purpose and not the principal amount (*e.g.* V, 1279, 1332). The money was probably entrusted to the local bodies with the stipulation that they should maintain the perpetual lamps (*e.g. ūri vāru poli naḍapagalavāru*, V-1332; *Penuṁgōṭi vāru naḍapagalavāru*, V-1333; *Sāliveṇḍāna vārū nāḍapaṁgalavāru*, V-1330).

In a number of cases either lamp-stands or money towards the cost of lamp-stands[5] were gifted to burn the *dīpas*. These lamp-stands were to different varieties like twin lamps,[6] of different metals such as iron,[7] copper,[8] brass[9] and of different weights.[10] Some of the lamp-stands, which actually were the images of the donors bearing the lamps, must have been very beautiful.[11] In this connection the following description deserves our attention :

> *Prādād=ā-chaṁdra-tāram Kamaṭha.pura-patēs=sannidhau dīpa-hāstāṁ bhakty=*
> *ādāt= Kommidēvīduhitur=aghauudē s=āpi Sīt-ābhidhāyāḥ |*
> *Akhaṇḍa-dīpa-sahitaṁ pātraṁ kara-yugē dhṛitāṁ dadau kāṁchana-saṁkāśaṁ*
> *pratimāṁ puṇyavṛiddhyē ||*[12]

Apart from perpetual and occasional lamps and other daily offerings services like *Śrībali* (V, 1265), *Narasiṁhadēvara-avasaramu* (V, 1188), *Nārāyāṇabhōgamu* (V, 1204), *Śrīṅgāra-bhōgamu* (V, 1214), *Khaṇḍadharā-kolpu* (V, 1219) were offerred in the temple. Also the festivities like *Chaitramāsavasanta-navārātramula-vratamu* (V, 1159), *Kumāra-punnama* on the *paurṇamī* day of Kanyāmāsa (V, 1236), *Śrī-jayanti* (V, 1252), *Kotta-amāvāsya* in Māgha-māsa (V, 1295) and *grāma-pradakseiṇa* on every *māsasaṅkrānti* (V, 1308) were celebrated. An inscription (V, 1251-52) dated Śaka 1186 (A.D. 1264) records the gift of 3 *māḍas* by Naraharitīrtha-śrīpāda for feeding *śrī-vaishṇavas* on the *Śrī-jayanti* day with the interest accrued on that amount It is very interesting that the gift is stated to have been made for the *sukha-prasava* (easy delivery) of Dēvakī, the mother or Kṛishṇa. This instance is a proof of the most delicate sentiment of the great devotee Naraharīrtha-śrīpāda.

Music and dance were daily features in the temple. The musicians and dancers were paid regular wages (V, 1150). An epigraph (V, 1188) dated A.D. 1250 gives details of wages paid to the *sānis* and other musicians. According to this record 103 *māḍas* were gifted with the stipulation that the interest accrued on this money, which amounted to 51 *māḍas* per year, was to be utilised for the wages of musicians and dancers. Apart from the wages in the form of money they also received a share in the *prasāda* from the temple. However, there are instances of dancers receiving only a share in the *prasāda*. An inscription (V, 1225) dated Śaka 1271 (A.D. 1349) records that three dancers were to receive daily a share in the food offered to deity for which 30 gold *māḍas* were deposited in the temple.

There were a number of officials to supervise various aspects of temple administration. However, the inscriptions under study do not provide us information regarding the duties of each of the officers specifically. The following officials are referred to in the epigraphs : *bhōga-parīksha* (V, 1152, 1156, 1193, etc.), *sthāna-pati* (V, 1204, etc.), *bhōga-parīksha-mudra*, *sthāna-pati-mudra*, *ēkāki-mudra*, *Kāḷiṅgi-mudra*, *sthānāpati-vēhōra*,[13] *Kāḷaṅgi-vēhōra*, *kōshṭha-karaṇam*, *baṇḍāru* (*i.e.* *bhāṇḍāgārika*), *kaivāru*, *mānikālu* (V, 1214), *ēkāki*, *Kāḷaṅgi-nāyaka* (V, 1204), *koṇḍikāra* and *śāsanādhikāri* (V, 1226). These officials received shares in *prasāda* as evidenced by an inscription dated A.D. 1309 (V, 1214). Apart from these temple officials, temple servants like chauri bearers (*chāmara-kolpu*) (V, 1204), water suppliers for trees in temple garden (V, 1265), persons employed to maintain the temple garden (V, 1151), are also referred to in the epigraphs. They received their wages in cash and some times also a share in *prasāda* (V, 1193). This clearly shows that the physical comforts of the staff of the temple were well taken care of.

Variety of jewels were presented to the god on different occasions. Of them the following deserve mention : *paṭṭamu* (V, 1166), *navaratna-makuṭam*, *karṇapatras*, *muktāhāras*, *chōḷi-māla*, *padmamoggalamāla* (gold necklace of lotus buds), *padma-puvulu* (gold necklace of lotuses), *pahiḍi-mogali-rēkalu* (a gold ornament resembling *kētakī* petals) (V, 1190), *kaṇṭha-mālā* (V, 1230), *pahiḍi-gavvalu* (gold shells), (V, 1236).

The foregoing study of the pattern of donations for various services and celebration of festivities, number of temple officials and servants and arrangements made for their maintenance and number of jewels gifted to the deity give a clear picture of the economic condition of the region and richness of the temple in question. It also gives an insight into the status and facilities enjoyed by the temple staff.

An inscription (V, 1290) dated A.D. 1230 is quite interesting in that it throws welcome light on the system adopted to settle the boundary disputes and punishment to be awarded in case of violation of the decision. It records that since the villagers of Bonttalakōḍu were disputing about the boundary with those of Ponnaḍiya Tīrthapādadāsa of Śrīkūrmam, Śrīvaishṇavas of Tirupati, who were probably serving Narasiṁhadēva (*i.e.* Narasiṁhadivyamahāmuni, in whose presence the dispute was settled), the *dēśādhikāris* and the *nāyaks* of Kaliṅga-maṇḍala examined the records (*śāsanālu*) of Ponnaḍiya and set up the boundary stones bearing *sudarśana-chakra*. A security deed (*pūṭāku*, probably Telugu equivalent to Sanskrit *abhaya-patrikā*) was given to the residents of Ponnaḍiya signed by Rāmēśvara, the *sthānapati* of Madhukēśvaradēva of Nakaram in the (division) Kulavantani[14] in Kaliṅga-maṇḍala, Āditya-nāyaka, etc. of Siṁhapuram in Varāhavarttani, Nārepa-nāyaka, etc. of Śrīkūrmam. Gaṅgana-nāyaka, etc. of Ippili, Vishṇamanāyaka, etc. of Tēmaracheruvu, Bhīma-nāyaka, etc. of Kuruvīḍu in Sammaka-paṁpu, Mallapa-nāyaka of Tollabi in Eṛada-paṁpu, Eṛna (*i.e.* Eṛṛana)-maṇḍalika, etc. of Dharma-voramu, *dēśiraṭṭaḍlu* of Bhōgapuramu and the *maṇḍalam* (officials) including the *mahājanas* of Tāḍitoṛati. This list shows that the important officials of as many as eight villages and a temple official and other officials like *dēśi-raṭṭaḍlu* were drafted to settle the boundary dispute. Further, the inscription records the warning that if the villagers of Bonttalakōḍu once again dispute with the inhabitants of Ponnaḍiya regarding the boundary, or if trouble them or if claim the lands belonging to Ponnaḍiya, their entire property will be confiscated and they will be banished. The inscription was signed by the *maṇḍala-nāyakas* obviously of Ponnaḍiya and Bonttalakōḍu probably as recording their assent to the decision.

The brief study of the inscriptions of the Kūrmanātha temple attempted here underlines the need to study the temple inscriptions for the mine of information they contain regarding various aspects of history. It must also be noted that a comparative study of the inscriptions of the temples in different regions, especially in view of the pattern of donations, should be made in detail for achieving better results in reconstructing the economic history of the country.

REFERENCES

1. K.S. Soundarajan, *Ind. Te. Stylea* (1972), pp. 128-29.
2. For a detailed history of Naraharitirtha see *Ep. Ind.*, Vol. VI. pp. 260 ff.
3. Here and in similar references given in course of discussion the Roman numeral 'V' stands for *SII.*, Vol. V, while the following number in Arabic numerals indicates the General No. of the inscription included volume.
4. Some inscriptions (*e.g. SII.*, V, 1180, 1184, 1176, etc.) specify the quantity of ghee to be supplied daily and on that basis annually as 'one *aḍḍa* per day and thus 4 *puṭṭis* and 10 *tūmus* per year' 'while some specify the daily quantity and on that basis monthly quantity as 'one *aḍḍa* per day and thus 7½ *na* per month' (*Ibid.*, 1175).
5. See for *e.g.*, *Ibid.*, Nos. 1177, 1217, 1314.
6. For example an inscription dated A.D. 1707 records the gift of 10 iron twin-lamps (*inupa-kava-diviya-kōlalu Ibid.*,). No. 1265.
7. *Ibid.*
8. *Ibid.*, No. 1266.
9. *Ibid.*, Nos. 1863 and 1175.
10. Eg., *Ibid.*, No. 1163.
11. *Ibid.*, Nos. 1162, 1189, 1211.
12. *Ibid.*, No. 1227. This description may be compared with the *dīpa-taruṇis* or *dīpalakshmis* illustrated in O.C. Gangoly's *South Indian Bronzes*, pls. XXVI and XXVII.
13. Probably the term *vehōra* stands for *vyavahāri*.
14. The gist of this inscription given in K.V. Subrahmanya Aiyar's *Historical Sketches of Ancient Dekhan*, Vol. II, pp. 173-174 needs revision.

16

TWO INSCRIPTIONS ON KANYADANA

K.G. KRISHNAN*

In the year A.D. 1381, three groups of people described as *agara-janangaḷ*, *bhaṭṭas* of the distant regions, and *grāma-janangaḷ* met at the instance of the king Sāvaṇa-Uḍaiyar and Gāṅgēyarāyar in the premises of the Koṛṛavāḷiśvara temple at Kōvilūr *alias* Kaḷaṇivāśal near Kāraikkuḍi in the Ramanathapuram District, Tamil Nadu. They met with a view to define the norm for marriage (*kanyā-dāna*) among the brāhmaṇas with reference to the gold and silver to be utilised for the bride's ornaments. It was decided, in accordance with the tenets of Dharma (śāstra) and the times, that only eight *kaḷañju* of gold and eight *kaḷañju* of silver should be collected for that purpose apparently by the bride's party from the bridegroom's party before arranging for the marriage. It was also stipulated that those who transgressed this decision with a view to acquire wealth will be ex-communicated.

Similarly in A.D. 1425, the Kannaḍigar, Tamil̤ar, Tel̤uṅgar, Ilāḷar etc., among the Brāhmaṇas of the Paḍaivīṭṭu-rājya[1] signed an agreement in the presence of the deity Gōpinātha at Viriñchipuram to the effect that marriages among themselves should be conducted only as *kanyādāna* and not by giving or taking gold. It was also stipulated that those who transgress this agreement would be punished by the Government and would also be excommunicated.

Both these proceedings are recorded on the walls of the temples in the respective villages.[2] It will be seen that within fifty years after the earlier meet a total ban on receiving gold for the bride was effected though in a different area. It is apparent, however, that the bad effects of the bride-price (*poṇ vāṅgippeṇ kuḍuttal*), if we may call it so, were keenly felt in the community. There is no recorded evidence of any action taken as a follow up after these resolutions of the Brāhmaṇa community were adopted with the support of the contemporary Governments. But it is obvious that the limit prescribed in the earlier meet could have been exceeded by a far greater degree justifying the drastic action of total ban on receiving gold.

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In both the cases it is found that the bridge was the object of evaluation and that the capacity of the bridegroom's party to pay the gold and silver for ornaments dictated the suitability of the alliance. The term Kanyādāna means the gifts of the girl. This appeared to have been the only approved form of marriage, though in the nature of a gift, as the later record implies. But now after about 500 years we are confronted with a situation where the process has reversed. The bridegroom has become the centre of attention and the recipient of what is now generally called *vara-dakshiṇā* or dowry. It is ironical that the term however *kanyādāna*, has been retained in so far as the rituals are concerned, but not its content.

When we look into the history of this practice through the ages we find that both ways, whether the gift of gold or wealth in any form to the bride by the bridegroom's party as in early days or vice versa as in these days, this practice has drawn comments of condemnation from the Smṛitikāras of those days and the social reformers or law makers of modern days respectively. It appears that this element of a nearly compulsory gift has been utilised by one party to get the best out of the other as is the case with any other device in the history of mankind. It seems that it has all started from very remote ages with a gift of a 'hundred cows plus a chariot'. This of course looks like a virtual sale of the girl in return for the gift, though it is asserted by the Smṛitikāras that the gift is intended to be passed on to the newly married couple.[3] The intention appears to hold good even to-day, in spite of the change of position in respect of the gift. The only difference is that the cattle have been replaced by gold and silver for ornaments which naturally go to the person of the bride. We are left to infer the sociological factors that have led to this change. One of these factors is possibly the shrinking land-holdings in the rural set-up in the background of organised communal life, called *agrahāra* or *agara.* The chain of actions from the diminishing withdrawal of governmental and social patronage for the spiritualistic-cum-ritualistic life of the Brāhmaṇas, the consequent dependence on what little is left to hang on, to the emigration of educated youth in search of gainful employment outside leading to absentee landlordism, led to the boosted importance of the bridegroom more due to the economic aspect than to the spiritual one.

The texts of the two records are reproduced here for the benefit of the readers :

A

1. Svasti Śrī Śak-ābdam 1303 ṇ mēl Sāvaṇa-Uḍaiyaṛku chellāniṇṛa Durmmati-varsham Tai-m .6 ti apara-pakshattu pratamaiyum Budha vāramum peṛṛa Pūśattu nāḷ Aḻagu-kuḍi-ko . . . perumāḷ-āṇa . . . . . . iṇmai iyakku . . .
2. . . ṇa nāyaṇār Kāṅgēya-rāyarum pala agara-jaṇaṅ-gaḷaiyum dūra-dēśāntarattu bhaṭṭargaḷaiyum grāma-janaṅgaḷaiyum kuvittu brāhmaṇaṛku taṅgaḻir-tāṅgaḷ kanniyādāṇam=āga udakam paṇṇikkuḍukkiṛadu oḻiya . . . . . . ṇum . . . iṇṇapaḍi iḍak—

3. kaḍavad-eṉṟu niśchayittu kal-veṭṭavēṇum eṉṟu Uḍaiyārum Nāyinārum aṟivikkaiyil nāṅgaḷ sarvvarum=āga irundu dharmattukkum kālattukkum porunda ninnayittapaḍi [l] kaliyāṇa . pari . . tu . . . n bhūshṣṇattukku poṉ e—

4. ṉ-kaḻañjum veḷḷi eṉ-kaḻañjum iv-vagaippaḍiyilē kuḍuttu kalliyāṇam paṇṇik-koḷḷak-kaḍavad=āgavum [l] idu oḻiya artthattai āśaippaṭṭu āṟach=cheydu koṇḍavaṉ brammaṇaṉum=allava . . . . . ik . . . . vaṇa ippaḍikku chandrāditya—

5. vaṟ=chellak=kal-veṭṭiṇapaḍikku agara—jaṇaṅgaḷ eḻuttu dūra-dēśāntarattu bhaṭṭargaḷ eḻuttu grāma-janaṅgaḷ eḻuttu Vilakkili . . . . . eḻuttu . . . eḻuttu

B

1. Subham-astu
2. Svasti Śrīman=mahāirājādhi(dhi)rāja-parmēśvar=āṇa Śrī Vīra-pratāpa-Dēvarāya-mahārāja [r*] pri—
3. thivi-rājyam paṇṇi aruḷāniṉṟa śaka-ābdam 1347 ṉ mēl chellāniṉṟa·Viśvāvasu
4. varusham Paṅguṇi mi 3 ti shashṭiyum budhaṉ-kiḻamaiyum peṟṟa Aniḻattu nāḷ Paḍaivīṭṭu irājyattu
5. aśēsha vidhya (dvān)-mahājanaṅgaḷum Arkka-pushkaraṇi Gōpinātha-sannādhiyilē
6. dharmma-sthāpan-samaya-patram paṇṇi-kuḍuttapaḍi [l*] iṟṟai-nāḷ mudal-āga inda
7. p-Paḍaivīṭṭu rājyattu brāhmaṇaril Kannaḍigar Tamiḻar Teluṅgar Ilāḷar mudal-ā
8. na aśēsha-gōtrattu aśesha-sūtrattil aśēsha-śākhaiyil-avargaḷum vivāham paṇ—
9. ṇum-iḍattu kanyādānam=āga vivāham paṇṇak-kaḍavar=āgavum [l*] Kanyādānam paṇṇāmal
10. poṉ vāṅgip-peṉ kuḍuttāl poṉ-kuḍuttu vīvāham paṇṇināl Irāja-daṇḍattukkum uṭpaṭṭu
11. brāhmaṇyattukkum puṟamb=āgak-kaḍavār=eṉṟu paṇṇina dharmma-sthāpana samaya-patram [l*] ippaḍikku aśēsha ma—
12. hājanaṅgaḷ eḻuttu [ll*]

REFERENCES

1. This represents an area comprising roughly the southern parts of the North Arcot and the northern parts of the South Arcot Districts.
2. *A.R.Ep.*, No. 526 of 1962-63; *S.I.I.*, Vol. I, No. 56. pp. 82-84.
3. *History of Dharmaśāstra*, Vol. II, part IX, chapter I, pp. 503-506.

17

A NEW INSCRIPTION OF MUHAMMAD BIN TUGHLUQ SHAH FROM BASAV KALYĀN (KALYĀNI)

Z.A. DESAI*

Basavakalyāṇ (17° 53′ N and 76° 57′ E) until recently known as Kalyāṇi and Kalyāṇ is a taluka headquarters in Bidar district of Karnataka. Situated at a distance of about 80 kilometres to the south-west of the district headquarters, it came into prominence towards the close of the 10th century A.D. when the capital of the later Western Chaulukyas was transferred here from Mālkhēḍ.[1]

In the year A.D. 1935-36, the Archaeological Department of the Nizam's Government, Hyderabad, carried out a thorough survey of the Muslim inscriptions of the town as a result of which as many as eleven inscriptions came to light. These were duly published in the epigraphical journal of the Archaeological Survey of India by Mr. (later Dr.) G. Yazdani, the Director, who was also its editor in his capacity as honorary Muslim Epigraphist to the Government of India.[2]

Of these eleven inscriptions from Kalyāṇi, two belonged to the Tughluq dynasty : one was a record dated A.H. 723 (A.D. 1333) of Ghiyāthu'd-Dīn Tughluq Shāh (A.D. 1320-1325) and the other dated A.H. 734 (A.D. 1333) that of his son Muhammad bin Tughluq Shāh (A.D. 1325-1351). One more Tughluq inscription of Muḥammad bin Tughluq Shāh seems to have eluded this survey, probably because it did not exist on any monument inside the town, but the epigraphical tablet lay near a well in a field on its outskirts. Dr. Sayyid 'Abdu' sh-Shakūr Kādirī then working in the office of the Superintending Epigraphist for Arabic and Persian Inscriptions in the course of his official tour in early 1966, to Kalyāni to survey and copy inscriptions discovered this epigraph. It assigns the construction of a mosque to Aḥmad son of 'Alī Jajnerī, on the 1st Ṣafar 726 (7th January 1326), during the *iqṭā*-'ship of Maliku' sh-Sharq Qiwāmu'd-Daulat wa'd-Dīn, the minister (*vazīr*) of the province (*iqlīm*) of Deogīr.[3] This inscription is being published here for the first time.

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Maliku' sh-Sharq Qiwāmu'd-Dīn finds mention in a Sanskrit record from Kalyāṇi itself dated in the latter part of the year, as shall be referred to later.[4]

The Sanskrit inscription is an extremely important record of Muḥammad bin Tughluq Shāh, dated Śaka 1248 (A.D. 1326), which has been rightly described as a charter of religious tolerance and freedom of worship granted to the local Hindu community by its Tughluq governor. Apart from mentioning Malik Qiwāmu'd-Dīn, the *mahāpradhāna* of the Tughluq monarch, as the viceroy of the Mahārāshṭra-Maṇḍala, it names Khojā (Khwāja) Ahmada (Aḥmad) as his subordinate. This record which is dated about eleven months later in the same year as the Persian one under study was published at least thrice.[5] According to Dr. Sircar, who is of the opinion that the earlier published two transcripts are full of errors and as a result the text has not been properly understood, both Joshī and Desāi having read and interpreted the text differently and made statements which are unsupported by the record as read by him, the epigraph, set up in Śaka 1248, Kārttika-śudi 15, Monday (10 November 1326), when Sulṭān Muḥammad was the reigning monarch, his *mahāpradhāna* Malik Qiwāmu'd-Dīn (Mallika Kāmadīna) was the viceroy of the Mahārāshṭra-Maṇḍala and the latter's subordinate Khwāja Aḥmad surnamed Jaṇḍamalantara was the Syāramallika at Kalyāṇapura, states that during the troubled days associated with (the rebellion of) Bahāu'd-Dīn Gurshāsp,[6] the people of Karnataka discontinued the worship of the god Madhukēśvara[7] and that when later on, the question of restoration of the god's worship arose and there was a controversy among the citizens, Thakkura Malla went to Khwāja Aḥmad who granted his request for reinstallation of the deity.[8]

It will be seen that both the records supplement each other as far as Khwāja Aḥmad is concerned. Some more light has been recently thrown on his identify, from a literary source as will be shown later.

The Persian inscription is engraved in relief in Naskh characters on a tablet measuring 165 by 54 cm. The calligraphy is of no particular merit, but it conforms to the style of writing of some of that monarch's other inscriptions. The text is divided into five horizontal lines, each preceded by an invocation to Allāh, while a Persian Fragment (*Qit'a*) comprising a single couplet expressing the desire for elimination of Self is inscribed vertically at the left end of the slab, starting from bottom. It states that the building of an auspicious mosque was ordered to be built during the reign of the Sulṭān of the Sulṭāns, Shadow of Allāh on earth, Abu'l-Mujāhid (lit. Father of the striver) in the path of Allāh, Muḥammad son of Tughluq-Shāh and during the tenure of *iqṭā*-ship of Maliku' sh-Sharq (lit. Prince of the West) Qiwāmu'd-Daulat wa'd-Dīn (lit. Prop of the State and the Religion), the minister (*Vazīr*) of the clime (*iqlīm*) of Deogīr, by the humble slave, hopeful of the Mercy of Allāh and His Forgiveness, Aḥmad (son of) 'Alī Jajnerī on the 1st Ṣafar 726 (7th January 1326).

The text has been read as under :

1. Yā Allāh! amara hāhdihi'l-imārata'l-masjida'l mubārak-ata'l-Maimunata'sh-sharīfato fī ahd-i-Sulṭān-is-Salāṭīn

2. Yā Allāh! zillu'llāhi fi'l-'ālamīn Abu'l-Mujāhid Muḥammad bin Tughluq Shāh

3. Yā Allāh! a's-Sulṭān khallada'llāhu mulkahū wa sulṭānahū wa a'lā amrahū wa shānahū wa dar naubat-i-iqtā'-i-Malik-

4. Yā Allāh! u'sh-Sharq Qiwāmu'd-Daulat wa'd-Dīn Vazīr-i-iqlīm-i-Deogīr Makkanahu'llāhu banda-i-ḍa'īf a'n-naḥīf ar-rājī ilā Raḥmati

5. Yā Allāh! ta'ālā wa'l-ghufrān Aḥmad 'Alī Jajnerī bitārīkhi'l-ghurra min Ṣafar khatama'llāhu bi'l-khairi wa'z-zafar sanata sittū'ishrīn wa sab' mi'ya't.

It may be translated as follows :

(a) (1) O Allāh! This building of the blessed and auspicious mosque was ordered (to be constructed) in the reign of the Sulṭān of the Ṣulṭāns.

(2) O Allāh! Shadow of Allāh in the worlds, Abu'l-Mujāhid (lit. Father of the striver) in the path of Allāh, Muḥammad bin Tughluq Shāh.

(3) O Allāh! the Sulṭān, may Allāh prepetuate his kingdom and severeignty and elevate his command and majesty, and during the period of the *iqṭā'*-ship of Malik.

(4) O Allāh! u'sh-Sharq Qiwāmu'd-Daulat wa'd-Dīn (lit. Prop of the State and the Religion), the Minister (Vazīr) of the Clime (*iqlīm*) of Deogīr, may Allāh strengthen his authority, by the weak and infirm creature who is hopeful of the mercy.

(5) of the Exalted (Allāh) and (His) Forgiveness, Aḥmad son of 'Alī Jajnerī, on the date, the First of (the month of) Ṣafar, may Allāh end it with bounty and victory, (of the) year (A.H.) six and twenty and seven.

(*b*) *Fragment*

I want to devote (my) entire existence in Thine path. For one for whom Thou exist, of what use is the existence?

Malik Qiqāmu'd-Daulat wa'd-Dīn or Malik Qiwāmu'd-Dīn of the record is Mallika Kamadīna of the Sanskrit inscription under reference which calls him *Mahāpradhāna* (Prime Minister) and the king's viceroy in Mahārāshṭra-Maṇḍala. This geographical division—which more or less has continued right upto our times under the name Marāṭhāwāḍ and denotes almost the same extant, is called the *iqlīm* or clime of Deogīr in the Persian record, evidently after its principal city Deogīr which was rechristened a little later on as Daulatābād by the Tughluq monarch who had made it his capital even, as is wellknown. Maulānā Qiwāmu'd-Dīn, son of Maulānā Burhanu'd-Dīn and entitled Qutlgh Khān was a tutor of the Sulṭān who seems to have appointed him governor of the Mahārāshṭra-Maṇḍala not long after his accession to the throne. The Moroccan traveller Ibn Baṭṭūṭa describes Qutlugh Khān as a man of his word, in whom people trusted and in whose promises they had great faith; according to him, again, Qutlugh Khān was held in great esteem. The Sulṭān who respected him so much so that whenever he paid a visit to the Sulṭān, the latter would stand up, and for this reason Qutlugh Khān never visited the Sulṭān unless he was sent for. He speaks of him as very charitable, fond of alms-giving and having a self-sacrificing nature, passionately given to doing good to the needy and the indigents.[9]

The epigraph is extremely important in providing a definite date in Qutlugh Khān's career in the Deccan. He used to accompany the Tughluq Sulṭān on his expeditions. According to Dr. Mahdī Ḥusain the foremost authority on the history of the Tughluq dynasty, Qutlugh Khān was appointed Vazīr of Daulatābād in A.D. 1335 only.[10] From the record under study, it is clear that he was already the Vazīr at Deogīr (which had not yet been rechristened, as it was later consequent upon the transfer of capital from Delhi) on 7th January 1326, the date of the record. The contemporary Ḍiyāu'd-Dīn Baranī, who knew Qutlugh Khān personally enumerates him in the list of grandees of Ghiyāthu'd-Dīn Tughluq Shāh and places his appointment to the vazirate of Deogīr immediately after the latter's accession to the throne in A.H. 720 (A.D. 1320).[11] Therefore, Qutlugh Khān is likely to have continued at Deogīr throughout the reign of Tughluq Shāh and might have been confirmed as such by the latter's successor on his assuming kingship in 1325. In case there was a recall in the meantime, the reappointment much have been made during the rebellion of Bahāu'd-Dīn Gurshāsp or after it was quelled as he is referred to as such both in the Persian and the Sanskrit records of 7th January 1326 and 10th November 1326 respectively. Qutlugh Khān is believed to have been in charge of the Deogīr-Daulatābād province till A.D. 1345 when he left Daulatābād for Delhi under recall from the Sulṭān.[12]

As to Aḥmad the builder of the mosque also, the inscription provides a new piece of information. Though it does not specifically mention his designation or office held by him, the tenor of the text speaking of his having issued orders for its construction implies that he held authority at the place. He was, as stated in the Sanskrit record under reference, a subordinate of Malik Quiwāmu'd-Dīn at Kalyāṇi. The term Sāyir Mallika (Sāyir-Malik) used in the said record refers, according to Dr. Sircār, to Khwāja Aḥmad only, though previously it was taken to represent a different person.[13] Dr. Sircār takes the first part of the term as Sa'ir meaning 'taxes' and the entire term as Sā'ir-Malik or Collector of Taxes.[14] Thus according to him, Aḥmad the subordinate officer at Kalyāṇa held an important post. He was the local authority in which capacity he granted the request of *Ṭhakkura* Malla and though a Muslim, was helpful in the re-installation of the Hindu deity and restoration of traditional worship in the temple. But the new piece of information supplied by the Persian record is in regard to his personal history. It gives the name of his father and his surname indicating the place of his origin or domicile, namely 'Alī and Jajneri respectively. Thus Aḥmad was the son of 'Alī and they hailed from Jajner.

But from an unexpected contemporary literary source, one of the oldest Persian dictionaries compiled in India, namely the *Dasturu'l-Afāḍil Fī Lughati'l-Faḍā'il*, that we get a few, but welcome, particulars about Aḥmad. It was at the instance of his son Shamsu'd-Dīn Muḥammad Aḥmad Jajnerī that this dictionery was compiled by Rafī also known as Ḥājib-i-Khairāt Dihlwaī in A.H. 743 (A.D. 1342-43) during the reign of Muḥammad bin Tughluq Shāh. The author, a resident of Delhi, who had come to Bīr (in the modern Usmānābād district in the Marāṭhāwād region of present Maharashtra State) mentions having met Shamsu'd-Dīn Muḥammad, the Ṣadr-i-Ṣudūr of the East (Chief Ecclesiastical Officer) when the latter had come there from his headquarters Ustādābād (Gogī, now in Gulbargā District of Karnātaka) on a short visit.[15] It was at the instance of this newly found patron that Ḥājib compiled his dictionary. Ḥājib speaks highly of Shamsu'd-Dīn Muḥammad who was, according to him, the most accomplished among the poets of India and China, provider of livelihood to the poor and patron of the learned and the eloquent (*i.e.* poets). He was, he adds, proficient alike in prose and verse, a minister and a secretary of profound deliberation and judgment, etc.[16] Hājib also gives the full name of his father Aḥmad son of 'Alī with the *nisba* Jajnerī.

In short, a son of this builder of the mosque at Kalyāṇi and its governor under Qutlugh Khān had also risen to occupy high position under Muḥammad bin Tughluq, with Ustādābād-Gogī as his headquarters.[17]

The place-name Jajner finds mention in historical works, but its exact location is difficult to determine. Its earliest mention is by Al-Bīrūnī who places it 15 Farsakhs (roughly 80 kilometres) north-west of Sunam towards Lāhore. Professor S.H. Hoḍīwālā seems to think that the town Jajner is now represented by Janer village, a ruined site in the Zīrā Tahsil of Ferozepore district, about 20 kilometres distant from Zīra.[18] It is very likely the same town which was the native place of of a well-known Sayyid family in the time of Balban and Alāu'd-Dīn Khaljī according to Baranī. In the printed edition of the latter's history, the place-name is transcribed as Janjer, which is obviously a misprint or scribe's error for Jajner.[19]

REFERENCES

1. For the history and antiquities including monuments of the place which was a *jāgīr* under the Āṣaf Jāhis of Hyderabad, see *Annual Report of the Archaeological Dapartment of H.E H. the Nizām's Dominions* (*ARADN*), 1344 F/1 34-35 A.C. (Calcutta, 1938), pp. 17-23; *Karnataka State Gazetteers, Bidar District* (Bangalore, 1977), pp. 557-562. For the inscriptions of Kalyāni,. see *Annual Report on Indian Epigraphy* (*ARIE*), 1956-57, Nos. B, 186-203; 1965-66, Nos. D. 244-71.
2. *Epigraphia Indo-Moslemica* (*EIM*), 1915-16, pp. 1-14.
3. *ARIE.*, 1965-66, No. D. 271.
4. G. Yazdānī (*EIM.*, 1935-36, p. 1) while editing the inscription recording the construction of a mosque in A.H. 723 (A.D. 1323) thinks that of the pair of titles, Ulugh and Qutlugh used in the epigraph, the latter refers to Malik Qiwāmu'l-Mulk the governor of Daulatābād and Ulugh to Sulṭān Muḥammad bin Tughluq Shāh himself in his pre-kingship period. But this is nothing but a wrong interpretation of the text which clearly assigns the construction to Malik Shāhin Sulṭānī; it used both Ulugh and Qutlugh for Malik Shāhīn only, mentioned therein, whose name they immediately precede. On the basis of this wrong interpretation of the text, the *Bidar*

District Gazetteer (*Op. cit.*, p. 61) assigns the conquest of Kalyāṇ to Prince Ulugh Khān, later on Sulṭān Muḥammad bin Tughluq Shāh.

5. M.R. Joshī, 'A Sanskrit Inscription from Kalyāni', *ARADN*, 1936-37, pp. 43-45; P.B. Desāi, 'Kalyāṇi Inscription of Sulṭān Muḥammad Śaka 1248', *Ep. Ind.*, Vol. XXXII, Part IV (October 1957), pp. 165-70; Dr. D.C. Sircār, 'Notes on Kalyāṇi Inscription of Śaka 1248', *ibid.*, Vol. XXXIII, Part II (April 1959), pp. 71-76; ARIE., 1956-57, No. B 193.
6. For the details of this rebellion, see Dr. Āghā Mahdī Ḥusain, *Tughluq Dynasty* (Calcutta, 1963), pp. 202-16. Dr. Mahdī Ḥusain (*ibid.*, pp. 292, 657) places the rebellion in A.H. 727 (A.D. 1326-27), but the rebellion appears to have been already more or less crushed by 10th November 1326 (=13th Dhu'l-Ḥijja 726), the date of the Sanskrit record. In any case, the rebellion must have started in A.H. 726, the second year of the Sulṭān's accession itself, as is implied by Ibn Bhaṭṭūṭa, a fact noted by Dr. Mahdī Ḥusain himself (*ibid.*, p. 202).
7. Desāi (*Op. cit.*, p. 166) interprets the text in this part to mean that the temple was seriously damaged. This is also repeated in *ARIE.*, 1956-57, p. 18. Sircar, however, is inclined to discard this interpretation and subsribe to the view that it was not a case of desecration of the god by the Muslims, but of the discontinuation of the god's worship (*Op. cit.*, p. 71).
8. For the full contents, see Sircār, *Op. cit.*, p. 72. Mahdī Ḥusain (*Op. cit.*, pp. 332, 333) identifies the local governor with Khwāja Aḥmad Ayāz, for which there is no justification whatsoever. Apart from the fact that the latter was made Prime Minister by Muḥammad Tughluq immediately after his accession to the throne and that Qiwāmu'd-Dīn Qutlugh Khān had fought under him when he had proceeded from Gujarāt under royal orders to quell the rebellion of Bahāu'd-Dīn Gurshāsp (Iṣāmī *Futūḥu's-Salāṭīn*, Madras, 1948, p. 425; this fact is noted by Mahdī Ḥusain himself, *Op. cit.*, p. 203), the most conclusive proof against this indentification comes from the Persian epigraph under study, dated ten months earlier as also from a contemporary work, the author of which was a protege of the son of the Khwāja Aḥmad of the Kalyāṇi epigraphs. In both these the Kalyāṇi governor is called Aḥmad son of Alī, Jajnerī.
9. Ibn Bhaṭṭūṭa, *The Riḥla of Ibn Bhaṭṭūṭa*, Eng. translation Dr. Āghā Mandī Ḥusain (Baroḍā, 1953), p. 102. For an account of his career, see *ibid.*, pp. 104, 111, 132, 169; Mahdī Ḥusain, *Op. cit.*, pp. 245, 246, 250, 255, 256, 279, 280, 281, 299, 300, etc.
10. Mahdī Ḥusain, *Op. cit.*, pp. 280-81.
11. Baranī, *Op. cit.*, pp. 280-81.
12. Mahdī Husain, *Op. cit.*, p. 279.
13. Desāi, *Op. cit.*, p. 166.
14. Sircār, *Op. cit.*, p. 71. We do not come across any designation *Sāir-Malik or Malik-i-Sā'ir* in Persian inscriptions or literary or historical works. The term would have been his title, though I am unable to suggest its correct Persian form.
15. For details about the meeting and the poet's being invited to Ustādābād and enjoying the nobleman's patronage, etc., see Ḥājib-i-Khairāt, *Dasturu'l-Afāḍil*, Ed., Dr. Nazīr Aḥmad (Teherān, 1352, Shamsī), pp. 46-53.
16. *Ibid.*, pp. 47-50; also pp. 10-15 (Introduction).
17. At Ustādābād-Gogī is found a fragmentary and damaged inscription recording the construction of the fort in A.H. 738 (A.D. 1338) during the reign of Muḥammad bin Tughluq Shāh. It seems to refer to some greatest Khān and magnificent Khāqān whose name is lost. It is quite likely that Shamsud-Dīn Muḥammad who had his headquarters here in A.H. 743 (when the above dictionary was compiled) had constructed this fort.
18. For details, see S.H. Hoḍīwālā, *Studies in Indo-Moslem History* (Bombay, 1938), pp. 52-53. Nazīr Aḥmad, *Op. cit.*, p. 11, f.n. 1, was the first to refer to the identification of the place by Principal Hoḍīwālā.
19. Hoḍīwālā, *Op. cit.*, p. 53; Baranī, *Op. cit.*, p. 111 (which has Janjer) and 350 (which has Nanjar).

18

DISCOVERY OF BRAHMI INSCRIPTION AT BRINDAVAN (MADAN MOHAN TEMPLE COMPLEX)

K.P. Poonacha*

A huge oblong mound lies about 0.6 km away on the right bank of river Jamunā almost to the west of Brindavan town. It rises approximately to a maximum height of about 15 metres above the present ground level with a circumference of above 200 metre. It is evident from the study of the topography of the area to the north of the mound that in the past it was situated right on the bank of the river Yamunā which takes a meander. Subsequently the river changed its course and is now about 0.6 km away from the mound. The southern slope abruptly merges amidst the streets of the town. Much of the surface of this mound on the east-west is covered by the constructions of the recent dates, where as the southern portion is occupied by Madan Mohan temple complex dated 16th century A.D. representing some unique local influence in its architecture and some modern structures belonging to the priests attending the temple.

However, on the Northern side of the mound are available the cognizible remains of brick structures rising from about 2-3 metre from the ground level almost upto the peak of the mound. The brick structures exposed due to heavy erosion jets out from the mound and its remains are traceable to a length of about 60 metres rising in a deminishing order to a height of about 12 metres.

At the North-Eastern corner of the mound some portion of the brick structure is almost intact and the facing of the outer wall with a series of offsets was also noticed. From a thorough examination of the structure it is evident that the core of the structure is built using bricks measuring 50×30×0.7 cm which underwent considerable alteration or addition in the subsequent periods. This observation is further substantiated by the variations noticed in the sizes of the bricks. At the lower most level bricks measuring 50×30×0.7 cms have been used for the constructions which almost correspond to the bricks of the Mauryan and Śuṅga levels.

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Superimposing which, is another type of brick measuring 30×19×4 cms almost resembling the Kushāṇa bricks. Another unique type of brick measuring 19×19×4 cms is used occasionally at the corner of the structure. Bricks measuring 30×34×8 cms have been used at the third stage of alterations or additions over which on the top most level are lakhauri bricks measuring 12×9×3 cms used profusely. Bricks used in all the stages of construction are kiln made.

To the north-east corner on the outer face of one of the offsets was discovered two identical inscriptions inscribed on one of the narrow sides of the bricks measuring 50×30×0.7 cms. Of the two inscriptions the one which is exposed to open air consists of fourteen letters in one line. The second inscription which was partiably exposed consisted of only four letters. A loose brick covering the remaining portion of the inscribed brick when removed revealed eight more letters. All the twelve letters are in one line and runs from left to right. The average height of the letters in the inscriptions is 2 cms. The letters were evidently imprinted with a mould when the brick was still wet and then the brick was burnt. The letters are in a good state of preservation. The lines are regular and the letters are well executed. The impression in the second inscription is more clear than in the first inscription.

The following is the text of the inscriptions which is identical.

Inscription No. 1

(*a*) Tha Na Bhagavata Na Natakēna Ka(ri[1]) (tam[2])

Inscription No. 2

(*b*) Tha Na Bhagavata Na Natakēna Ka (?) (?)

Both read as

(*a*) Sthāna bhagavatēna Natakēna k(ri[1]) (tam[2])

Tentative translation

This place of Bhagavata (was) created or constructed (by) Nataka.

(*b*) Sthāna Bhagavata(ē)na Natakēna Ka(ri[1]) (tam[2])

1. The remaining vertical stroke of letter No. 13 may be taken as the part of the letter *ri*.

2. A close examination of the letter No. 14 at the site revealed that the bottom portion of the letter consists of two downward stroke with a *mātra* at right top which may be read as tam.

The inscription (*a*) contains fourteen letters of which some portion of letter Nos. 12, 13, 14 is damaged. In the inscription (*b*) contains twelve intact letters and only a part of the vertical stroke of letter No. 13 is available while letter No. 14 is missing.

The palaeography of the record would suggest its engraving during the later part of the third century B.C. or early part of second century B.C. Attention is also drawn to the famous Ghosundi Inscription dated to Late Maurya or early Śuṅga period where the letters *ke*, *na*, *ga*, *bha* and *ta* has close resemblence to the Brindavan inscription and corroborates the above mentioned tentative dating.

It is too well known that Mathurā was a great centre of Bhakti cult which believed in the worship of Vāsudēva-Kṛishṇa, a divine incarnation of Vishṇu in human form. The Mathurā lintel inscription (1st century B.C.) and the Mōra well inscription refer to the building of shrines dedicated to Vāsudēva-Kṛishṇa and Vrishṇi heroes.

Is is evident from the inscriptions that Brindāvan was a great centre of cult and in antiquity it is earlier to Mathurā centres. It remained as an important Bhāgavata centre upto the medieval times and remains to be the same even today. Incidentally a small medieval temple situated in the mound is dedicated to Chaitanya Mahāprabhu who lead the revival movement of the Bhakti cult in the later part of the 15th century A.D. According to tradition one of the ghat situated near the mound is known as Madan teka where it is said Lord Kṛishṇa in his childwood days saved a boat which was submerging in the Jamuna river with the help of his thumb. Little further (½ km) is the place where Kṛishṇa fought with the great serpent *Kali*.

Chronologically the inscriptions from Brindavan seems to be almost contemporary to Ghosundi inscription and earlier to the inscriptions reported from Bhilsa, Nānēghat, Besnagar, Mathurā and Mōra which refers to Bhāgavata pantheon or Bhakti cult.

No ceramic evidence of the early historic period was encountered on the surface of the mound. Only few medieval potsherds with decoration was noticed in the site. Some of the stone sculptures representing Garuḍā, Hanumān, Vishṇu kept in front of a modern temple built on the eastern slope of the mound indicates that it was upto the medieval time a great centre of Vaishṇavas.

There is ample of space (60×20 m) to excavate the whole of the Northern slope of the mound which is absolutely necessary to tackle the following points

(*a*) To ascertain the chronology of the site.

(*b*) To expose the entire structure which may throw some light on the antiquity of early Indian architecture with special reference to brick edifices and also inscriptions if any, will be of immense help to ascertain the antiquity of the structure in question.

(*c*) To ascertain the purpose for which the structure was built and to know much about the reasons for its alterations or additions in the subsequent periods.

(*d*) A series of trail trenches all along the mound may throw some light on the bathing Ghat, if any, that existed during the early historic times as river Yamunā was flowing very close to the mound under study.

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SIGNIFICANCE OF LĀḌ KHĀN TEMPLE INSCRIPTION

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I. *The Problem*

Much literature has comeforth on the chronology of Chālukyan temples, but the discrepancies have not come to rest. A perusal of different views expressed on the problem, however, indicates that there has been consensus in at least that the Lāḍ Khān temple of Aihole cannot be assigned the first place in the chronological chart of Chālukyan monuments[1]. Rather, convincingly, arguments are being putforth suggesting for that temple a seventh or even eighth-century date. But, clearly, temple architecture in Chālukyan homland had considerably been perfected by seventh/eighth century A.D. Therefore, if we accept the recent dating of the Lāḍ Khān, the aligned problem which still craves for solution is that of its peculiar plan and distinctive secular-like appearence. A clue to such a problem could be expected only in contemporary records found on the temple. With this in view, inscriptions found on the Lāḍ Khān were closely examined. The outcome of the study is presented below.

II. *The Inscriptions*

Of the four inscriptions engraved on the temple, one is only partially preserved[2]; another has nothing important to convey[3]; and a third is intelligible to the extent of revealing the name of one Devakutāḷa[4] (*circa* eighth-ninth century characters). The fourth, inscribed on the wall (exterior, to the south of the porch) of the main hall is well preserved and interesting. Hence it is studied in detail here.

The inscription[5] is in archaic Kannaḍa language and characters of *circa* eighth century A.D. Its text is as follows :

1. Sva(st)i Āryya-jana-samuday-ōdita-var-Āryyapurādhi-
2. shṭhānadā śrī-mahā-chāturvvidya-samudayam=ainūrvvarkkam

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3. Beṇṇama-sōmayājigaḷa koṭṭa dānaṁ An(n)a-prāśana=kkaṁ
4. Pū-savaṇakkaṁ chaulakkaṁ dharaṇaṁ upanaya(nakka)ṁ samā-
5. Varttanakkaṁ gadyāṇaṁ maduvegaṁ ādhānakkaṁ paśu(vi*)dhiga-
6. meraḍu gadyāṇaṁ chāturmmāsyakke mūṟu ga(d)yāṇaṁ agni-
7. shṭōmakke che(a?)ydu gadyāṇaṁ Achaḷiyamippavargge koṭṭudu

This may be rendered into English as follows :

(Thus was) the grant that Beṇṇama-sōmayāji gave to the Five-hundred, (who constituted) the great body of *Chaturvēdins* of the excellent capital of Āryapura which arose from a collection of worthy people : A *dharaṇa* at the ceremonies of feeding a child with boiled rice, of attaining puberty and of tonsure; a *gadyāṇa* at the ceremonies of investiture with sacred thread, of return home of the religious student after completion of his study; two *gadyāṇas* at the ceremonies of marriage, of first sign of conception and of *paśuvidhi*; three *gadyāṇas* at the celebration of *chāturmāsya* (sacrifices); and five *gadyāṇas* at the celebration of the *agnishṭoma* sacrifice. Given to those who shall endure.

Analysis

From an analysis of the contents of this inscription the following facts emerge :

(*i*) No king or dynasty is referred to.
(*ii*) The purpose of the record is to register (what seems to be) a grant.
(*iii*) Donor was Beṇṇama-Sōmayāji, apparently a Brāhmaṇa.
(*iv*) Donees were the Five hundred Chaturvēdins of Aihole.
(*v*) The grant is not for any god (At least it is not mentioned as such).
(*vi*) The purpose of grant is not specified.
(*vii*) As per the record, certain amount of money was fixed for different ceremonies which are individually mentioned. It is not clear if this was tax levied on the ceremonies.
(*viii*) There is no imprecatory part in the record.
(*ix*) There is not the slightest indication as to why this grant was incised in this particular temple.

The ambiguity of the record is thus apparent at the outset. No wonder, Cousens,[6] referring to this inscription, wrote : "The inscription does not seem to have any connection with the temple other than that it was a convenient and permanent place to publish a grant."

III. *Discussion*

Prima facie, Cousens' doubt regarding relevance of the contents of this inscription to the temple has to be discarded because : (*i*) the record is engraved on this particular temple and (*ii*) it registers a grant. A triangular relation between the donor, the donees and the temple is thus inevitable.

Having safely remarked that the inscription is of relevance to the Lāḍ Khān temple, we may now pass on to understand the purport of the record. This is essential to decide the exact connection of the epigraph with the temple.

This record can be interpreted basically in three ways :

A. Beṇṇama-somayāji celebrated the ceremonies mentioned in the record for each of which he gave away the specified amount to the Five-hundred Mahājanas of Aihoḷe.

B. Beṇṇama-sōmayāji made grant of money in the form of tax levied on each of the ceremonies.

C. Both '*A*' and '*B*' are untrue. The record intends to imply something else.

Let us examine each of these interpretations one by one to test their palatability.

A. An enquiry into the nature of ceremonies mentioned in the record reveals that it is impossible for Beṇṇama-sōmayāji to have performed all the ceremonies at a single stretch. Therefore, we have to eliminate possibility '*A*'.

B. Admitting that this is true, the purport of the record may be explained as follows :

(*i*) The Five-hundred Mahājanas of Aihoḷe were in charge of Lāḍ Khān temple; they received the grant on behalf of the deity of that temple (not mentioned).

(*ii*) Beṇṇama-sōmayāji was an officer in charge of certain revenues (not mentioned) which derived partially also from the taxes levied on ceremonies such as marriage, etc.

(*iii*) The grant consisted of income from taxes levied on the ceremonies mentioned in the record.

We may now review these points.

B. (*i*) The Mahājanas of Aihoḷe must have been a powerful body exerting substantial influence in matters bearing on that town. They were not only in charge of many temples but also patrons of temple constructions. The Lāḍ Khān might have been one of the temples under their control. As such, their receiving a grant on behalf of the deity of that temple is justified. Thus '*B* (*i*)' may be regarded as palatable. However, we may make note of the fact that in other inscriptions of Aihoḷe grants are given by/given in the presence of the *Mahājanas*; not received by them.[7]

(*ii*) It is difficult to justify '*B* (*ii*)' for various reasons. (*a*) Beṇṇama-sōmayāji is not described in the record as an officer in any capacity. If he was really an officer, this fact would not have possibly gone unmentioned in the record.[8] (*b*) The supreme authority empowered to sanction remittance of revenue was the king. Without his permission Beṇṇama-sōmayāji could not have made grant of revenue in favour of the temple. It is customary and obligatory to mention in such records the ruling sovereign.[9] On the contrary, our epigraph excludes any such references. (*c*) In such donations it is also customary to record imprecation in order that the specifications of the donation are carried forward without hindrance.[10] But our record abruptly stops after mentioning the grant. (*d*) Beṇṇama-sōmayāji was clearly a Brāhmaṇa. Although there is no bar for a Brāhmaṇa to become an officer or ministers, we should note that in the present case it would have been an additional qualification and as such would not have been left out from the record. Therefore, it shall have to be understood in the sense that Beṇṇama-sōmayāji was simply a Brāhmaṇa and not an officer. This would deprive him of any authority to make grant of revenue.

(*iii*) This is rather entangling. To decide its credibility, first we have to enquire into other contemporary epigraphs. A Balligave inscription[11] refers to the remittance of tax on *pēriyā-osage*, salt etc. The term *pēriyā-osage* is understood in the sense of 'festival of attaining puberty'. In other words *pū-savaṇa* of our record was taxable subject. But it should be noted that although the term *osage* has the meaning of festival of attaining puberty', in some records the term has been used in the general sense of 'great festivity'. Sastri rightly suggests[12] that *pēriyā-osage* must be taken to mean a great festival meant for the enjoyment of the community. This interpretation also explains the problem that would otherwise crop up, *viz.* why remittance should have been particularly on festival of puberty and no other similar festival. The Lakshmēśvar inscription[13] of Vikramāditya II's time records the taxes payable by each householder (based on his economic status) for joyous festival expenses—*osage-utsāhaṅgaḷge*—every year in addition to those levies sanctioned by previous custom (*pūrva-āchāraṁ*) such as *puṭṭige*, *chōra-pāka-daṇḍa-daśāparādhas*, etc. Obviously, the word *osage* here is used in the sense of 'a festival'. Such festivals must have been meant for the enjoyment of the community as a whole, and hence 'taxable'. The other word *puṭṭige* may be translated as 'for birth' (thus tax on *puṭṭu* or '*birth tax*'), but this is by no means devoid of doubt.

The above discussion discloses that there is no definite evidence in contemporary records to show that any ceremony mentioned in the Lāḍ Khān temple inscription was 'taxable'. This is, however, not to say that such levy was not in vogue at all.[14]

On the contrary, there is ground to believe that some of the ceremonies listed in the record might have been 'non-taxable' items. We should note that the ceremonies, excepting *paśuvidhi* and *chāturmāsya*, are mentioned in Hindu *Dharmaśāstras*[15] as *saṁskāras* to be performed of/by an individual at various stages of his/her life. They can be grouped into two categories, depending on their natute : (*a*) Those performed of an individual, appended by prescribed ritual (*e.g.* *annaprāśana, upanayana*, etc.), (*b*) Those performed by an individual purely as a religious obligation (*e.g.* *agnishṭoma*). Of these at least category '*b*' must have been exempt from levy, because, being concerned principally with the Brāhmaṇa class, any levy on such religious ceremonies would have invited the ill-will of that class, embarrassing the sovereign. Again, omission of the ruling sovereign and of imprecation from the record would be hard points to explain if we presume the grant to be tax levied on different ceremonies.

Thus negative points weigh heavily against the interpretation '*B*'. Therefore, it has to be discarded as untenable.

Consequently, it has to be inferred that the record intends to imply something other than '*A*' and '*B*'. Let us try to understand what this 'something' could have been.

C. Perhaps we may interpret the epigraph as follows :

(*i*) The specifications in the record pertained to the stipulated amount to be paid on using the temple for celebrating socio-religious ceremonies (mentioned individually).

(*ii*) The payment was to be made over to the Five hundred Māhājanas who were in charge of the Lāḍ Khān temple for all practical purposes.

(*iii*) Final decision as regards the fees prescribed for each ceremony was taken under the leadership of Beṇṇama-sōmayāji who published the 'award' (as preferred to 'grant' in this context) on the temple.

Let us see how far these points can be explained, if convincingly.

C. (*i*) We have already noted above that *annaprāśana*, *upanayana*, etc, mentioned in the record correspond, with two exceptions, *viz. paśuvidhi* and *chāturmāsya*, to the *saṁskāras* described elaborately in the *Dharmaśastras*. The meaning of *paśuvidhi* is obscure while the *chāturmāsya* is known to have been a *vrata*.[16] It is unnecessary to go into the details of these ceremonies here. Suffice it to say that the *Dharmaśāstras* are clear in their descriptions that these were to be ceremoniously celebrated with due regard for prescribed ritual. It is easy to comprehend that on the occasion of such celebrations, the near and dear of the concerned party gathered in considerable numbers. This would have necessitated a convenient spatious building for accommodation, more so when the middle and well-to-do strata of the society were involved. For, although their home could have been large enough, it might not have been convenient for a large gathering to witness the ceremony. In a town like Aihoḷe, which without a streak of ambiguity can be stated to have been economically prosperous and flourishing, a building which could facilitate such ceremonies would have been most welcome. A good parallel we can cite of our own times would be the so-called *Kalyāṇa-maṇḍapas* (marriage halls), especially in towns and cities, which are meant for the use of the public for celebration of Marriage or other similar functions of socio-religious nature. And for this, the concerned party would be charged a stipulated amount of money. We may also note that such functions are held in temples even to this day. In this perspective, it would not be far-fetched, therefore, to conceive of Lāḍ Khān as a 'Hall-temple', initially meant for the people of Aihoḷe for socio-religious celebrations. Correspondingly, it can also be surmised that the specifications of the Lāḍ Khān temple epigraph are nothing but the stipulated sum for using the temple at such celebrations.

(*ii*) This point has been clarified already under *B* (*i*) above. The faint disapproval that the grants were usually made by or in the presence of Mahājanas and not received by them, can be explained in this context; because here the Mahājanas, as elders of the town, were directly involved in the administration of the Lāḍ Khān Hall-temple.

(*iii*) The temple being under the jurisdiction of the great body of Five-hundred Mahājanas of Aihoḷe, the prescriptions must have been fixed after considerable discussion, possibly under the leadership of Beṇṇama-sōmayāji who himself might have been the chief member of the Five-hundred Mahājanas. Accordingly, the 'award' has been published on the temple in his name.

Two more points of doubt can be cleared here. First exclusion of the name of the ruling sovereign. This can be explained away as being unnecessary because the matter decided was of purely local nature, bearing least on the affiairs of the State. On the other hand, the epigraph appropriately commences with the praise of Five hundred chaturvedins of Aihoḷe. Because they were highly venerated as of prime importance of Aihoḷe town, and were directly concerned with the contents of the record. We may note in this context that another inscription on the Lāḍ Khān also begins with their praise, instead of referring to the ruling king. Secondly, the exclussion of the imprecation. This can also be put aside as unnecessary in the context. In reality to register a grant was not at all the intention of this record. On the contrary, it was a sort of 'rate-board' displayed to the public!

IV. *The Temple*

Now it is impreative to have a close look at the Lāḍ Khān to assay how far it could fulfill the conditions of a "hall-temple".

A. Features

Before we pass any remark, it is desirable to state the features of the Lāḍ Khān briefly.

(*i*) Main components are : (*a*) a large pillared hall (approx. 15m × 15m)—the largest of its kind Aihoḷe: (*b*) a portico of considerable dimension (approx. 6m × 10.5 m); and (*c*) an additional upper sanctum.

(*ii*) A small (principal) sanctum (approx. 2m × 1.25 m) is clumsily accommodated within the hall itself at the rear part, so that back wall is common to both hall and sanctum.

(*iii*) This sanctum now enshrines a *liṅga*, but originally it contained an icon of a deity.

(*iv*) At the centre of the hall a Nandi is placed facing the sanctum.

(*v*) Perforated screen-windows provide light and ventilation for the hall.

(*vi*) The portico has provision of *kakshāsana* (back-rest seat) along its periphery.

(*vii*) Hall is furnished with roof sloping in two tiers on all four sides.

(*viii*) Corresponding to the central bay of the hall the upper flat-roofed sanctum rises above.

(*xi*) There is no specific pathway to reach the upper sanctum. Access is from the porch where a stone ladder helps to reach the roof.

(*x*) There is no spire (*śikhara*).

B. *Requisites*

The requisites of a building of the sort we envisaged while interpreting the inscription are :

(*i*) a large hall for congregation;
(*ii*) a deity to witness; and
(*iii*) provision for fire-altar.

C. *Remarks*

The great hall is the most imposing feature of the Lāḍ Khān temple[17]. It is the largest of its kind of Aihoḷe. In addition the Lāḍ Khān has also a sizable portico, with provision of back-rest seat along its periphery. That the hall-feature is stressed by the architect is too evident from the roof, sloping on all four sides. The inner sanctum appears to be only subsidiary as indicated by its incongruous size and position in the hall. Individuality of the sanctum is not implied externally also. In our opinion, the inner sanctum was deliberately intended to be only subsidiary. Thus the Lāḍ Khān easily fulfils the first requisite of a hall-temple.

For all socio-religious ceremonies, the presence of a deity was essential. Because the Almighty was to be the witness of all acts performed in the temple. To satisfy this demand a small sanctum was provided for the deity. But not much space was to be lost in doing so. This explains the inongruous size and positioning of the sanctum.

Although a *liṅga* presently occupies the sanctum, there can be little doubt that it originally enshrined an icon of some other deity. This is evidenced by the facts that (*a*) the sanctum is rectangular on plan and (*b*) the pedestal of the *liṅga* is attached to the rear wall. In all probability, the original deity was Sūrya[18]. It goes without saying that the Nandi in the centre of the hall is also a later addition.

With the Nandi eliminated from the original layout of the temple, it is easy to imagine that the central part of the hall originally stood empty. This would have been the most appropriate locus for raising the fire-alter, so essential an appendage for most of the ceremonies listed in the Lāḍ Khān inscription. That the upper sanctum was an afterthought is indicated by the fact that no specific approach has been provided to reach this shrine, but for a stone ladder kept in the porch. It probably arose out of the conversion of the temple, when the deity of the inner sanctum was replaced by a *liṅga* and the former enshrined in the upper sanctum[19].

Thus the Lāḍ Khān, besides retaining the look of a secular structure, fulfils all the requisites of a hall-temple.

Viewed from this perspective, the numerous *Gosāsa*-stones found near the Lāḍ Khān, recording *go-sahasradāna* performed by various individuals, become significant. One might entertain, looking at them, a faint thought that these must have been performed in the Lāḍ Khān temple itself.

V. Summary

Inscriptions found on the Lāḍ Khān temple were examined with a view to obtain ing a clue to explain the peculiar plan and secular-like appearance of that temple (I). Of the four inscriptions engraved on the temple, only one seemed interesting because of its ambiguous nature. Analysis of this incription (II) showed that there are three possible ways of interpreting its meaning (III, *A*, *B*, *C*). Each was examined from various angles to test its credibility. It was found that interpretation III *C* stood the test of scrutiny. Accordingly it was surmised that the incription refers to sums of money to be paid to the Mahājanas of Aihoḷe on using the Lāḍ Khān temple for functions of socio-religious nature which are mentioned in the record individually. This means that the Lāḍ Khān was something like our modern *Kalyāṇamaṇḍapas* (III *C*(*i*)). On examination, the Lāḍ Khān temple showed all the features requisite for a "hall-temple" meant for socio-religious ceremonies of the public (IV). Our conclusion, therefore, is that the Lāḍ Khān temple was originally a semi-religious building for the use of public. People performed socio-religious functions here, for which they were required to pay stipulated sum, depending upon the ceremony performed, to the Mahājanas of Aihoḷe.

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2. *IA.*, VIII, p. 287.
3. Obuvudu idon ghoshisi kiḍipon ghalige: *SII.*, XV, No. 497; Annigeri, A.M. (Dharwar, 1974), *Aihole Saṁskṛiti mattu kale*, p. 147, No. 4.
4. *SII.*, XV, No. 495; Annigeri, H.M. (Dharwar, 1974), p. 147, No. 3 :
    1. Śrī Devakutāḷa ma(ṇḍa)veḷḷa
    2. eṇba i(da)ṇyāke ko(ṇḍar)
    3. pañcha mahāpā(ta*)ka
5. *IA.*, VIII, p. 287.
6. Cousens (Calcutta, 1926), p. 32.
7. For instance, see *I.A.*, Vol. VIII, pp. 285-86. *SII.*, XV, 463; Annigeri, A.M. (Dharwar, 1974), p. 52, No. 15, etc.
8. Cf. *I.A.*, pp. 285-86, *pesadarā magan Revaḍi baḍḍarāula āle* - "while Revaḍi, son of Pesadora, was ruling the *baḍḍarāula* tax", as reinterpreted by Ramesh, K.V.
9. Cf. *IA.*, VIII, pp. 285-86.
10. Records mentioning even insignificant grants conclude with an imprecation, cf., *IA.*, VIII, pp. 285-86; Annigeri, A.M. (Dharwar, 1974), pp. 152-53, No. 15, etc.
11. *IA.*, XIX, pp. 142-45.
12. Sastri, K.A.N. in Yazdani (London, 1960), *The Early History of Deccan*, I, p. 238.
13. *Ep. Ind.*, XIV, pp. 188ff.
14. Undeniably, at least marriage was a taxable subject from early period. Terms like *kaṇṇālakkāṇam, vivāhappaṇam, ugappārpon*, etc. are indicative of this fact. See Sircar, D.C. (Delhi, 1966), *Indian Epigraphical Glossary*, and Subramaniam (Madras, 1957), *South Indian Temple Inscriptions*, III, Pt. II. But there is no indication as to taxation on sacrifices like *agnishṭoma*, etc.
15. Kane, P.V. (Poona, 1958), *History of Dharmaśāstra*, II, pt. I, pp. 188ff.
16. *Ibid.*, V, pp. 122-23. For Vedic sacrifice of the same nomenclature, see *Ibid.*, II, pp. 1091-1108.
17. Almost every writer on Indian art-history has been first attracted by the 'hall-feature' of the Lāḍ Khān. Cousens (Calcutta, 1926), p. 33—"At first sight it would seem that the building was simply a hall or *maṭha*......" Brown, Percy (Bombay, 1965), p. 52—"... it was an adaptation of another structure devised for an entirely different object. This was an edifice planned for secular and civic use, the *santhagara*, the village mote, note or meeting hall. ."; Soundara Rajan, K.V.(Dharwar, 1969), pp. 3-4—"The main structure is entirely closed on all around and is no better than a civilian hall, ... Lāḍ Khān, thus was not, after all, an aborration, but a retionalisation of the simple residential hall in the religious context, of formative stages."
18. *Matsya-Chakra* motif for the pierced windows of the rear wall and the Nāgarāja of the central bay seem to be significant (*Sarparājño Sūryovā*). They recur in the Durgā temple of Aihole, which has been conclusively proved to be a Sun temple on epigraphical grounds.

20

SOME PROBLEMS OF KARNATAKA COINAGE

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A perusal of the numismatography of Karnataka reveals that study and research of the coins of ancient and medieval Karnataka are not quite encouraging. Except for a history of Karnataka coinage which presents an upto date and connected account from the earliest times to the end of the Mysore Oḍeyar dynasty no other reference work is available on the subject.[1] Research articles on the coinage of the area in question are normally confine to the announcement of new hoards of coins.[2] Hence there are many gaps and problems in our knowledge of the coins of Karnataka of the ancient and early medieval periods. An attempt is made here to identify such problems.

The punch marked coins are the earliest extensive currency of ancient India. They were in circulation in Karnataka too. Though it was an extensive currency, not many hoards of them have been found in Karnataka. Even those found here do not exhibit any uniqueness of the area and thereby it has been surmised that the northern punch marked coins migrated to south of India including Karnataka, perhaps during the Mauryan or post Mauryan period. As Karnataka was included in the empire of Aśoka, it is quite likely that the Mauryan punch marked coins were in circulation here also. The question of the date of their entry into Karnataka is not known because of the lack of evidence. M.H. Krishna has described two hoards of punch marked coins. The first one was a gift from a trading company of Madras.[3] Though this contains one, half, and one fourth of a *Kārshāpaṇa*, we cannot attach much importance to this hoard as it was found outside Karnataka and has no chronological significance. Another set of eleven silver punch marked coins were found at Dharwar.[4] They belong to Mauryan and post-Mauryan series. A solitary punch marked coin was found in the archaeological excavations at Banavāsi in stratified levels. From the stratigraphic position it has been suggested that this coin was found in pre-Sātavāhana levels.

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Another silver punch marked coin was found in the excavations at Chandravaḷḷi in 1947.[5] It was found in stratum 7 which has been ascribed to middle Andhra level on the basis of pottery. The excavations at Vadagaon Madhvpur near Belgaum have yielded some punch marked coins. These coins were found in a brick structure which has been ascribed to first century A.D. Two more hoards of punch marked coins have been found recently; one at Gulburga and the other in Raichur.[6] But as no study of these coins has been made so far, their use to the problem is practically nil. A treasure trove of silver punch marked coins was recently discovered at the village Chikka Sindadgi in Raichur District.[7] These coins were found in a globular pot which had an inscription *Chantasa* in characters of second or third century A.D. A detailed study of these punch marked coins is yet to be made. Though we may form a general picture of the punch marked coins in Karnataka, their exact significance are uncertain. This is the case with their typology too.

The coins of the Mahāraṭhis and Chuṭus have been found in Chitradurga, Aihoḷe, Banavāsi, Chandravaḷḷi and Karwar. The Chuṭu kings known to us from their coins were Chuṭukulānanda and Muḍānanda on the basis of the legends. But recently another coins of the same typology has been reported from Banavāsi and has been ascribed to a new ruler called Sivalānanda.[8] Though this is plausible such coins have not been found anywhere else. As the legends on these thick lead coins are generally worn out or even distorted greatly it is not known if the legend as read is correct. Even the chronology of the Chuṭu kings is still uncertain. Untill we get some more better specimens of these coins it would be difficult to make suggestions in this regard.

Karnataka had a well defined early historic culture characterised by the russet coated kaolin ware and other traits. In some of the sites where this culture has been recognised, Sātavāhana coins have been found. So far the coins of Gautamīputra Sātakarṇi, Vāsishṭhīputra Puḷumāvi and Yajnaśrī Sātakarṇi have been clearly identified. The coins of the other rulers of the Sātavāhana dynasty have not been found so far. Banavāsi which has yielded the only known inscription of Śivaśrī Puḷumāvi and other antiquities of the Sātavāhana period has not given evidence of the early Sātavāhana coins.[9] Portrait coins of the Sātavāhanas which have been found elsewhere have not been reported from Karnataka. Considering the influence of the Sātavāhanas over Karnataka in the early centuries of the Christian era, one is disappointed by their comparative rarity.

Roman coins have been found at Chandravaḷḷi and near Bangalore in the H.A.L. airport. The coins of Augustus and Tiberius occupy a prominent place in the hoards of Roman coins found in Karnataka. At Yesvantapur was discovered an earthen pot which contained 163 silver Roman coins. They belonged to Roman emperors Augustus, Tiberius, Caligula and Claudius. These coins range in date from 21 B.C. to A.D. 51. Even the Roman coin found at Chandravaḷḷi excavations belonged to the *Livia Pax* type of Tiberius and was minted between A.D. 26-37.[10] Though Banavāsi has yielded Roman pottery, no Roman coin has been found there. However, it is of great interest to note that at Banavāsi was found a soap stone mould of Roman coin which shows the reverse of the coin of Tiberius in which a female figure is seated on a stool holding along sceptre and a branch of a tree in another hand. There is also a legend *Maxim Pontif*. This mould seems to have been used to prepare pendants of the coin type described above. Whether it was manufactured locally or imported from Rome cannot be made out with certainty.

It is generally believed that the Kadambas of Banavāsi inaugurated the tradition of gold coinage in Karnataka by minting the *padma-ṭanka* coins. Some scholars are of the opinion that the *padma-ṭankas* ascribed to the Kadambas actually belonged to the 12th century A.D.[11] This would give a continuous link between the coins of the Chālukyas of Kalyāṇa and the *padma-ṭankas* of the Kadambas as the latter are closer in typology and technology to the former. Further in the Ramadurga hoard which contained the coins of the 12th century A.D. were found the *padma-ṭankas*.[12] But these are erroneous opinions not supported by facts. But the real point is that these *padma-ṭankas* are uninscribed and do not contain the name either of the dynasty or of the king. But it is equally valid and important to note that the word *padma-ṭanka* occurs in the inscriptions of the Kadambas. Further some attempts have been made to identify some names on these *padma-ṭankas*.

A similar difficulty is faced when we take up the study of the coins of the Gaṅgas of Talakāḍ. So far no inscribed coin of the Gaṅgas has been found. As the Gaṅgas had elephant as their royal emblem some of the un-inscribed coins with elephant on their obverse have been ascribed to the Gaṅgas. The typology and the elephant on the obverse and the other characters can not be doubted and there is nothing improbable in this ascription. It is of interest to note that epigraphs of the Gaṅga period mention many coins by name. However, it is necessary to search for the inscribed coins of the Gangas.

The period of the Chalukyas of Bādāmi was prosperous. Huientsang who travelled in the Deccan during the rule of the Chalukyas of Bādāmi has left testimonies to the greatness of the empire, particularly in the field of culture and economy. The dynasty had a great ruler like Pulakēśi II, who defeated Harsha. But we are disappointed when we take up the study of the coins of this dynasty because not many coins of this dynasty have been reported so far. Even the term *Varāha* seems to have become prominent from their period and became a common term to denote a gold coin whether it contained a boar or not. We have two types of coins of the Chalukyas; the inscribed and the uninscribed. The inscribed coins of gold have the legend *śrī vikrama mahārāja* in Kannaḍa characters along with other symbols. Their weight is 117 grains which is worth noting. The usual weight standard of southern coins is 60 grains, whereas the Guptas issued gold coins of 120 grains. Hence it becomes clear that the Chalukyas of Bādāmi imitated the Guptas in this respect. Indirectly it throws light on the economic prosperity of the Chalukya times. Only two gold and three electrum coins of the above variety have been found so far.[13] The uninscribed coins contain boar, both ornamented and otherwise, on the obverse and floral design on the reverse.[14] Their average weight is 60 grains, which corresponds to the usual standard weight. The above inscribed coins have been ascribed to Vikramāditya I. Unfortunately no coin of Pulakēśi II and other rulers have been reported.

The Rāshṭrakūṭas occupy a very prominent place in the political and cultural history of Karnataka. That their period was one of great economic prosperity is also known from various sources. But it is very curious that not a single coin of this dynasty has been found so far. Even the solitary coin doubtfully ascribed to Rāshṭrakūṭa Krishṇa I has been found to belong to Kaḷachuri ruler Krishṇarāja.[15] But the existance of a large number of coins such as *Honnu*, *Dramma*, *Suvarṇa*, *Gadyāṇa*, *Kaḷañju*, *Mañjāḍi* and *Akkam* is proved by the references to them in the epigraphs of the period. A coin ascribed to Karkka II is also in dispute and in all probability it may not be a Rāshṭrakūṭa coin at all.[16] Even M.H. Krishna's attempts to ascribe some of the coins to the Rāshṭrakūṭa rulers have not found general acceptance.[17] Kodur treasure trove contained some coins which were tentatively assigned by H. Krishnasastry to Rāshṭrakūṭa Gōvinda.[18] The coins of groups VII and VI contain Nāgarī legend *gaṅga*, *gaga* or *gagi*. These legends are taken to represent the name Gōvinda. Though no numismatist has objected to this interpretation, it is important to note that the reading has to be checked and later comes the question of ascribing these coins to Rāshṭrakūṭa Gōvinda.

When we come to the period of the Chālukyas of Kalyāṇa, the numismatic history of Karnataka becomes slightly brighter. Gold coins of Jayasimha in four types with legend have been found. Coins of *Jagadēkamalla* in five types are also reported. Coins of *Trailōkyamalla* and *Bhuvanaikamalla*, Ayyana and Daśavarman have also been found in addition to some coins issued by the Chālukyas feudatories. To augment this we have a large number of epigraphical references to terms like *Gadyāṇa*, *paṇa*, *hāga*, *kāgini* and *bēḷe* and their relative values are also furnished in the epigraphs. Though no copper coin has been found, the Chālukyan gold and silver coins are available in plenty. That minting had become an important part of the Chālukyan administration is proved by some of the technical details furnished by the inscriptions of the period.[19] The practice of naming the coins after their mints also started during the period.

The same developments continued in the period of the Hoysaḷas as evidenced by the coins of Vishṇuvardhana, Narasimha and others. Vishṇuvardhana issued three types of coins exhibiting his titles *Talakāḍugoṇḍa*, *Noḷambavāḍigoṇḍa* and *Maleparoḷugaṇḍa* whereas Narasimha had his name inscribed on his coins. We have found three denominations of a *gadyāṇa*, a *haṇa* and a *hāga* of these kings. Some coins of similar typology have been ascribed to Vinayāditya, Ballāḷa III and Sōmēśvara.

The coins of the Sevuṇas are of a different type. They contain many punches representing *śankha*, *chakra*, lotus flower and the name of the king in *Nāgarī* script.

So far the coins of Bhillama V, Singhaṇa II, Krishṇa, Mahādēva and Rāmachandra have been reported from Karnataka, Andhra, Madhya Pradesh and Maharashtra. Recently silver coins of the Sevuṇas have been reported by Ajay Mitra Shastry.[20] The epigraphs of the Sevuṇas also contain information on the names of the coins, their relative value and other details.

Lastly, we refer to the coins of the Āḷupas who ruled in *Tuḷunāḍ* or South Kanara. The coins which have been ascribed to the Āḷupas contain the legend *pāṇḍya-dhanañjaya* and the symbol of fish. On the basis of the word *Pāṇḍya* and fish, these coins have been attributed to the Pāṇḍyas of Madura.[21] The capacity of the Āḷupas to issue gold coins has been doubted inspite of the fact that the Āḷūpa inscriptions contain references to gold *gadyāṇas* and *paṇas*. Further a large number of these coins have been found in South Kanara at Mangalore, Bārakūr and Udayāvara. But this evidence is dismissed on the ground that the coins are migratory and when Pāṇḍyas deserted Madura, some people fled to their cousins in South Kanara with treasury. On the face of it this explanation seems untenable. The Pāṇḍyas did not have the monopoly over the fish as their royal emblem. The Āḷūpas also has the fish as their emblem as proved by the expression *mīnalāñchhanōpētaḥ* occuring in their inscriptions.[22] The prefix pāṇḍya in many of the names of the kings of the Āḷupas such as Pāḍḍyarāja, Pāṇḍyapparasa, Pāṇḍyappoḍeya is also worth noting in this connection. The more important evidence comes from the script of the legend oṅ these coins which is Kannaḍa in addition to *Nāgarī*. This clinches the issue in favour of the Āḷupas as the authors of these coins in question.

Some scholars are of the opinion that trade and commerce declined in early medieval India. One of the reasons adduced by them is the comparative rarity of the coins found from the fifth century to twelfth century A.D. Actual specimens of the coins are rare as in the case of Gaṅgas and Rāshṭrakūṭas. But one thing must be remembered that no systematic numismatic survey has been conducted in Karnataka and the melting of gold coins for making ornaments, particularly in south India has to be taken note of. Even the gold coins of the Oḍeyars of Mysore and the British East India Company are comparatively rare in Karnataka even though they are of recent date. Hence the rarity of the coins of the early period has to be explained under this background and not as an index of the decline of trade and commerce and consequent unstable economic conditions.

As already stated above, the numismatic data found in epigraphic and literary sources cannot be brushed aside. Just because numismatists have failed to discover the coins of the Rāshṭrakūṭas, should we conclude that the Rāshṭrakūṭas had no coins at all? Any one who looks at the mass of the numismatic data that one gets in the epigraphs of the Rāshṭrakūṭas will be amazed at the extensive currency system that was in vogue. Thus the lacuna of the discovery of actual specimens of the coins of the early medieval period is more than compensated by the epigraphical references. Hence the opinion that there was a decline in the trade and commerce in early medieval Karnataka is untenable. As scholars are now taking more interest in numismatic studies now, it will be possible to throw new light on many problems of numismatics of Karnataka in future.

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11. *JNSI.*, Vol. 30, p. 105.
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13. *Ibid.*, Vol. 26, p. 244 and Vol. 27, p. 46.
14. Elliot, *Coins of Southern India*, plale I, Nos. 22, 23 and *MAR.*, 1933, p. 38.
15. V.V. Mirashi, *Corpus Inscriptionum Indicarum*, Vol. I, p. clxxxi.
16. *JNSI.*, Vol. 27, p. 37
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18. *Kodur Treasure Trove*, 1917.
19. "Techniques of minting coins in Karnataka", paper read by A.V. Narasimha Murthy in the seminar on Minting Techniques in India held at Sambhalpur University under the auspices of the Numismatic Society of India in October 1981.
20. *Numismatic Digest*, Vol. IV, Part I, p. 29.
21. P.L. Gupta; *Coins*, p. 79, *JNSI.*, Vol. 29, p. 49.
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21

VĀSISHṬHĪPUTRA ŚIVAŚRĪ PUḶUMĀVI

Ajay Mitra Shastri*

One of the several problems concerning the Andhra-Sātavāhanas that still continues to elude a satisfactory solution, centres round the identity of king Śivaśrī Puḷumāvi and his place in the dynasty. This is mainly due to the apparent lack of even near unanimity in the Purāṇic list of the Andhra-Sātavāhana chiefs after Vāsishṭhīputra Puḷumāvi, the son and successor of the great Gutamīputra Sātakarṇi. The relevant Purāṇic text constituted after scanning a large mass of manuscript material runs as follows :[1]

Rājā tu Gōtamīputra ēkavimśat-tatō nṛipaḥ
ashṭāvimśaḥ sutas=tasya Pulōmāvai bhavishyati
Śivaśrir-vai Pulōmō tu sapt=aiva bhavitā nṛipaḥ

According to this text, Gautamīputra *i.e.*, Gautamīputra Sātakarṇi, was followed by his son Pulomā, *viz.*, Vāsishṭhīputra Puḷumāvi of inscriptions and coins, who ruled for 28 years and the latter was succeeded by Śivaśrī Pulomā who reigned for seven years. While the identity of the first two monarchs is, as indicated in these lines, firmly established beyond doubt, the same cannot be said about the third chief about whom, as will be seen in the sequel, there is a wide divergence of opinion.

The above lines are met with, with minor variations, in a vast majority of the manuscripts of the *Matsya Purāṇa* which, it is admitted on all hands, furnishes the fullest list of the Andhra-Sātavāhana rulers. Most of the manuscripts of the *Vishṇu Purāṇa* also mention Śivaśrī, but without suffixing Pulomā to it.[2] All but one manuscripts of the *Vāyu Purāṇā* omit all the names between Gautamīputra (*i.e.*, Gautamīputra Sātakarṇi) and Yajñaśrī (*viz.*, Yajña Sātakarṇi).[3] The same is true of *Brahmāṇḍa* list. The *Bhāgavata Purāṇā* also drops all the names after Sundara Sātakarṇi, No. 20 of the constituted list.[4] In view of these facts it is not at all surprising if the name of Śivaśrī Pulomā is not mentioned in the lists found in most of the *Vāyu* manuscripts, *Brahmāṇḍa* and *Bhagavata* which omit so many other names also.

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However, a highly defective manuscript of the *Vāyu Purāṇa* styled *e* Vāyu by Pargiter,[5] which is unique exception to all the other manuscripts of the text, contains a line which avers that a king named Sātakarṇi will rule for twenty-nine years.[6]

ēk-ōna-vimśatim bhāvyaḥ Sātakarṇis-tatō nṛipaḥ

After this it has a highly corrupt line which refers to Śivaśrī Pulumāvi, obviously the same as Śivaśrī Pulōmā of the *Matsya Purāṇā.*[7] Pargiter was extremely doubtful about the proper place of Sātakarṇi in the dynastic line, specially because the manuscript in question is highly defective and perfunctory and drops even such well-known names as Gautamīputra and Pulomā. However, in his constituted list he placed him as No. 24*a* within a square bracket after Pulomā, *viz.*, Vasishṭhīputra Puḷumāvi (No. 24) and mentioned next to him as No. 25 Śivaśrī omitting Pulomā which, too is found suffixed to his name in the constituted text. So according to this constituted list, the order of succession after Gautamīputra was as under :

Pulomā
|
Sātakarṇi
|
Śivaśrī

Pargiter took note of this line even though found in a single defective manuscript of a single Purāṇa stating that "a line found in only one MS. should not be rejected straight away".[8] He thought that "30 is no doubt the correct number" of the Andhra-Sātavāhana kings,[9] but when the inclusion of Sātakarṇi mentioned in this line raised it to 31, he observed "that the total 30 is a round number".[10] Though not clearly stated by Pargiter, he probably got a clue to this conclusion from the *Vishṇu Purāṇa.* Most of the manuscripts of this *Purāṇa* contain the expression *Śatakarṇī Śivaśrīḥ*[11] which may be taken to mean that Śātakarṇi Śivaśrī were parts of one and the same name, there being a single ruler called Sātakarṇi-Śivaśrī. The *Vishṇu* evidence was interpreted in this manner with its full implications by E.J. Rapson.[12] However, a single manuscript of the Purāṇa, called *IVs* by Pargiter, mentions Sātakarṇi and Śivaśrī as two separate chiefs, the former preceding the latter : *tasy-āpi Śātakarṇiḥ tata's—Sivaśrīḥ.*[13] It was evidently on the basis of the *Vishṇu* evidence, particularly the latter reading, that Pargiter utilised the *eVā* lines and gave Sātakarṇi a place before Śivaśrī in his constituted list of the Andhra-Sātavāhana kings even though it went against his firm conviction that the correct number of these chiefs was thirty. The dropping of the second part of the name, *viz.*, Pulomā, was also due to his excessive reliance on the *Vishṇu* evidence at the cost of the unanimous *Matsya* and *e* Vā tradition which adds Pulomā and Pulomāvi respectively after Śivaśrī.[14]

We have stated above, in brief of course, the Purāṇic evidence bearing on the identity of Śivaśrī Pulomā or Pulomāvi. Before we give our own interpretation it would be worthwhile to see how scholars have utilised and tried to interpret this evidence in their own way while studying numismatic material and reconstructing the history of the Andhra-Sātavāhanas. Evidently basing himself on the common *Vishṇu* reading which conjures up Sātakarṇi Śivaśrī as a single ruler, E.J. Rapson merely changed the position of the two components of the name putting Satakarṇi at the end in conformity with the usual pattern in vogue among the Sātavāhanas and attributed to him a couple of round lead coins from the Krishṇa Gōdāvari Districts of Andhra Pradesh. The portion of the legend accommodated on these species includes the metronymic Vāsiṭhīputa (Vāsisiṭhīputra) followed by Sivasiri (Śivaśrī). Conjecturing that the missing word following Sivasiri must have been *Sātakaṇisa*, he proposed to restore the full legend as *Rañō Vāstihīputasa Sivasiri-Sātakaṇisa* and accordingly ascribed these coins to a chief whom he called Vāsishṭhīputra Śivaśrī Sātakarṇi.[15] This restoration of the legend consequent attribution, it need hardly be stressed, is based on the unquestioning reliance on the *Vishṇu* evidence. As will be shown in the sequel, this view, though erroneous, is followed by several other writers on the subject.

On a few potin coins included in the Brahmapuri (Chanda District) hoard of Sātavahana coins the legend was conjecturally read by A.F.R. Hoernle as [*Silva-siri-Puḷumāvisa*, *but* he was doubtful about the first letter of *Siva* being *si* and did not rule out the possibility of *raño*, not *Siva*, being the intended word.[16] Rapson thought that what was read as *Siva* might be the traces of some device, perhaps a conch-shell.[17] However, M.F.C. Martin asserted that a coin of this hoard purchased by him from P. Thorburn definitely has the legend *Sivasiri-Puḷumāvisa*.[18] Be that as it may, the Tarhsla (Akola District) hoard contained as many as 32, and there might be a few more among those with the fragmentary legend *Puḷumāvisa*, round potin coins with the legend *Sivasiri-Puḷumāvisa* quite clear.[19] V.V. Mirashi, who published the hoard, was then of the opinion that these coins belonged to Śivaśrī Pulōmā of the Purāṇas.[20] He thought it probable that Śivaśri Puḷumāvi was a grandson of Vāsishṭhīputra Puḷumāvi as children are often named after their grandfather in India.[21] As well be noticed later, Mirashi changed his opinion subsequently.

D.C. Sircar obviously follows the common *Vishṇu* evidence when he states that "according to the Puranic lists, Pulumāvi's immediate successor was Śivaśrī Sātakarṇi" whom, following Rapson, he identifies the so-called Vāsishṭhīputra Śivaśrī Sātakarṇi of coins found in the Krishṇa and Gōdāvari Districts.[22] He is, however, doubtful regarding the identification of Vāsishṭhīputra Sātakarṇi, son-in-law of Rudradāma I, mentioned in a Kaṇhēri inscription[23] with Śivaśrī though he suggests that Śivaśrī may have been his coronation name.[24]

K. Gopalachari distinguishes between Vāsishṭhī-putra Sātakarṇi, son-in-law of Rudradaman I, and Śivaśrī Puḷumāvi, the latter being later than the former. However he concurred with Rapson in attributing the lead coins of the so-called Vāsishṭhīputra Śivaśrī-Sātakarṇi to Vāsishṭhīputra Sātakarni of the Kaṇhēri inscription and a silver portrait coin.[25] He regarded Śivaśrī Puḷumāvi as a grandson of Vāsishṭhīputra Puḷumāvi[26] though at the same time pointing out the honorific character of the words *śiva* and *śrī*.[27] It would thus seem that Gopalachari tried to reconcile the known literary, epigraphic and numismatic evidence by distinguishing these two rulers though he appears to have been confused about the attribution of their respective coins and laboured under the impression that Vāsishṭhīputra Sātakarṇi also enjoyed the name or honorific prefix Śivaśrī for which there was no basis except Rapson's attribution of the above-mentioned lead coins from the Krishṇa and Gōdāvari Districts.

Gurty Venkat Rao also drew a line of demarcation between Śivaśrī and Vasishṭhīputra Sātakarni, the latter being, according to him, the brother of Śivasvāti. predecessor of Gautamīputra Sātakarṇi.[28] Elsewhere, however, he describes Śivaśri and Vāsishṭhiputra Sātakarṇi as brothers.[29] He regards Śivaśrī as the immediate successor of Vāsishṭhīputra Puḷumāvi[30] and refers to him some times merely as Śivaśrī[31] and at other places as Śivaśrī Sātakarṇi,[32] but nowhere as Śivaśrī Pulōmā (or Puḷumāvi). Thus, while in regard to the order of succession he seems to follow the *Matsya* evidence, as regards the name he seems to stick to the general *Vishṇu* evidence according to which he was known as Sātakarṇi Śivaśrī.

A.S. Altekar agreed with Rapson in ascribing the above-mentioned lead coins from the Krishṇa and Gōdāvari Districts to Śivaśrī but he proposed to read the legend on them as *Raño Vāsiṭhiputasa Sivasirisa* as he found no trace of *Sātakaṇisa* following *Sivasiri*. He thought that Śivaśrī was probably a brother of Vāsishṭhīputra Puḷumāvi and may have ruled over Andhra-dēsa as his viceroy.[33] This was also the view of S.V. Bakhle.[34]

According to M. Rama Rao, Śivaśrī, mentioned as the successor of Puḷumāvi in the Purāṇas, is identical with Vāsishṭhīputra Śivaśri Sātakarṇi of the lead from coastal Andhra. But he distinguishes him from Śivaśrī Puḷumāvi of the potin coins from the Vidarbha region and the round and rectangular copper and lead coins in the Andhra Pradesh Government Museum, Hyderabad.[35] He surmises that Śivaśrī Puḷumāvi was "probably a member of one of the collateral branches of the Sātavāhana family."[36] He attributed to Śivaśrī Puḷumāvi not only coins with the legend *Raño Sivasiri-puḷumāvisa* but also those with the legend *Raño Sivasirisa*.[37]

A few years age Mirashi considered the problem afresh and arrived at conclusions diametrically opposed to his earlier views. He is not prepared to accept Śivaśrī or Śivaśrī Pulōmā of the Purāṇas as a separate entity because doing so would raise the total number of Sātavāhana kings to thirty-one, which would conflict with the consensus of the Purāṇas according to which the total number was thirty. Following the evidence of a reading of the *Vishṇu Purāṇa* which, as we have seen above, says that Pulōmā was succeeded by Sātakarṇi and the latter by Śivasrī (*tasy=āpi Śātakarṇis=tataś=Śivaśrīḥ*), Śivaśrī Pulomā cannot be regarded as a grandson of Vāsishṭhīputra Puḷumāvi; for, as Sātakarṇi was also a Vāsishṭhīputra and therefore a brother of Vāsisṭhīputra Puḷumāvi, Śivaśrī would be only his nephew, not grandson. Therefore he thought it more probable that Śivaśrī Puḷumāvi was the same as Vāsishṭhīputra Puḷumāvi who, like Āpīlaka and Skanda Sātakarṇi, may have assumed *śivaśrī* as an honorific and prefixed it to his name on some coins while other coins were issued without this epithet. In other words, he now ascribed the coins with the legend *Rañō Sivasiri-Puḷumāvisa*, which were earlier attributed to Śivaśrī Pulōmā of the Purāṇas, to Vāsishṭhīputra Puḷumāvi.[38] As for the identity of Śivaśrī of the Purāṇic list, he adopts the reading of a *Vishṇu* manuscript, *viz.*, *Śātakarṇi Śivaśrīḥ*, and identifies Śivaśrī with Vāsishṭhīputra Sātakarṇi and attributes to him coins with the legend *Sivasirisa Sātakaṇisa*, evidently following Altekar and Rama Rao who, as pointed out earlier, propose to read *Sivasirisa* on the lead coins from Andhradeśa on which Rapson tried to read *Rañō Vāsiṭhiputasa Sivasiri Sātakaṇisa*. He preferred this view as it would keep the total number of the Sātavāhana kings to thirty as averred in some Purāṇas. As this view will conflict with the statement of the constituted Purāṇic text the Śivaśrī Pulomā would rule for seven years after Gautamīputra's son Pulōmā, *i.e.*, Vāsishṭhīputra Puḷumāvi, Mirashi adopts the reading of a solitary *Matsya* manuscript (called *i* Mt by Pargiter), *viz.*, *Śivaśrīr vai Pulomāt tu sapt-aiva bhavitā nṛipaḥ* which he interprets in the sense that Śivaśrī (*viz.*, Śivaśrī Sātakarṇi) would reign for seven years after Pulōmā. He takes Pulōmāt as an ablative singular form from Pulōmā and accounts for this strange form by reiterating Pargiter's conjecture[39] that the text of the dynastic lists of the Purāṇas was originally composed in Prakrit and was Sanskritised later.[40] In short, he altogether denies the existence of any Sātavāhana king named Śivaśrī Puḷumāvi and holds that Vāsishṭīputra Puḷumāvi was succeeded by his brother Vāsishṭhīputra Sātakarṇi and the latter not by Śivaśrī Puḷumāvi as would follow from Pargiter's text but by Skanda Sātakarṇi.[41] Mirashi reiterated this position while publishing the Wategaon (Satara District) hoard which included as many as 369 round lead coins with the legend *Rañō Vāsiṭhiputasa Sivasiri-Puḷumāvisa* which, in keeping with his just mentioned view, he attributes Vāsishṭhīputra Puḷumāvi, son and successor of Gautamīputra Sātakarṇi, and takes these specie as an evidence of the extension of the Sātavāhana empire to the Kuntala region under Vāsishṭhīputra Puḷumāvi.[42] The recent discovery and publication by A.V. Narasimha Murthy and H.R. Raghunatha Bhatta of a short stone inscription found in the courtyard of the Madhukēśvara temple at Banavasi in the North Canara District of Karnataka and recording the erection of a sculptured stone block (*chhāyā-prastara*; in the present case, the inscribed stone itself) of the *mahādevī* (chief queen) of Vāsishṭhiputra Śivaśrī Puḷumāvi[43] has an important bearing on the present problem and aught to have, in the normal course, sufficed to prove the difference between the two Puḷumāvis, *viz.*, Vāsishṭhīputra and Vāsishṭhīputra Śivaśrī. However, he is of the opinion that this inscription also belongs to Vāsishṭhīputra Puḷumāvi who sometimes used the epithet *śivaśrī* for himself and that the inscription actually corroborates the conclusion drawn from the Wategaon hoard that the Kuntala area was annexed to the Sātavāhana dominions during the reign of Vāsishṭhīputra Puḷumāvi.[44]

It will follow from the above gist of views held by some of the scholars that there prevails a lot of confusion and uncertainty regarding the identity of Śivaśrī Puḷumāvi. It will be noticed that some scholars altogether deny the separate identity of Śivaśrī Puḷumāvi while others hold that Sivaśrī of the Purāṇas is none else than Vāsishṭhīputra Sātakarṇi who, they think, is styled Sivaśrī on a few lead coins from coastal Andhra. Only a few scholars grant an independent existence of Śivaśrī Puḷumāvi who is sometimes treated as a member of a collateral branch who may have served as a viceroy in a province of the Sātavāhana empire. All this is due not only to the variant readings in the dynastic text of the Purāṇas but mainly owing to the dropping of the name Puḷumāvi after Śivaśrī in the *Matsya* list by Rapson and the constituted list by Pargiter and the adoption of the *Vishṇu* reading which makes Sātakarṇi and Śivaśrī a single ruler and attribution to this ruler of a few lead coins from the Krishṇa and Gōdāvari Districts of coastal Andhra by Rapson. Let us defer these points for a while and refer to an important numismatic evidence that has come to light very recently.

Of late, two silver portrait coins of Vāsishṭhīputra Śivaśrī Puḷumāvi have been reported. One of them comes from a private collection[45] of Indore (PL. XVII) which is a well-known market for coins[46] while the other was found in the excavations at Dhulikatta (Pl. XVIII) in Andhra Pradesh.[47] Like other Sātavāhana silver portrait coins, these are circular in shape and have the weight of a hemidrachm. They bear on the obverse the head of the king to right, with moustaches and curly hair, wearing *kuṇḍalas* in ears and a pearl-bordered *lalāṭikā* on the forehead and the Brāhmī-Prakrit legend *Rañō Vāsiṭhiputasa Savasara Puḷumavas* standing for *Rañō Vāsiṭhiputasa Sivasiri Pulumāvisa* along with edge on the obverse and Ujjain symbol capped by a crescent and a six-peaked hill, also surmounted by a crescent, with a radiate solar device between their upper portions and a wavy line below them and the Dravidian Prakritsouthern Brāhmī legend *Arahaṇaku Vāhiṭṭimākaṇaku Sivatiru Puḷumāviku*, which is a literal rendering of the obverse legend, along the circular border.[48]

These shecie are of great importance for the history of the Sātavāhanas as they finally clinch the question under consideration. Silver portrait coins of Vāsishṭhīputra Puḷumāvi are already known to numismatists[49] and a comparison of the royal portrait on his coins and that on the coins described above will convince anyone that they represent two different personages. Vāsishṭhīputra Puḷumāvi is clean-shaven, almost straightnosed, of a bulky built and has a protruding lower lip while Vāsishṭhīputra Śivaśrī Puḷumāvi is moustached, tight-lipped and hook-nosed. The ear-ornaments worn by the two are also of different designs and so are the forehead-ornaments. The curls of the hair on the coins of the two rulers are also depicted differently. We notice another important difference in the portraiture. On the coins of Vāsishṭhīputra Puḷumāvi some portion below the neck is also represented while no portion underneath the neck is shown on the coins of Vāsishṭhīputra Śivaśrī Puḷumāvi. It is thus more than clear that Vāsishṭhīputra Puḷumāvi and Vāsishṭhīputra Śivaśrī Puḷumāvi have to be treated as different rulers. As the Purāṇas aver that Śivaśrī Pulomā ruled for seven years and at the moment there is nothing to contradict this statement and as his portrait on his hitherto known silver coins depicts him as an old man, it may be reasonably concluded that he ascended the throne at a highly advanced age.

Now that the separate identity of Śivaśrī Puḷumāvi is established beyond doubt, a review of the attribution of some of the above-mentioned coins has become imperative. While it is not intended to deny altogether the use of *śivaśrī* as an honorific,[50] there can be absolutely no doubt that in the present case Śivaśrī has to be taken as a distinctive name meant to distinguish him from the other Puḷumāvi who, too, like Śivaśrī, was a Vāsishṭhīputra. It is to be remembered in this connection that it is only in this case that the Purāṇas employ Śivaśri as a proper name which alone must suffice to prove his independent existence. The use of the metronymic Vāsishṭhīputra for him may probably indicate that he was a uterine brother of Vāsishṭhīputra Puḷumāvi, Vāsishṭhīputra Sātakarṇi and Vāsishṭhīputra Skanda Sātakarṇi[51]. It is well known that the Sātavāhana rulers issued their coins sometimes with and sometimes without metronymics. It is thus clear that the Chanda (Brahmapuri)[52], Tarhala[53] and other coins[54] with the legend *Rañō Sivasiri Puḷumāvis* and the Wategaon coins with the same legend with only the insertion of the word *Vāsiṭhiputasa* between *rañō* and *Sivasiri* should all be ascribed to Śivaśrī Pulomā of the Purāṇas. There is now no question of these specie being regarded as the alternate issues of Vāsishṭhīputra Puḷumāvi who employed *śivaśrī* as an honorific epithet on some coins and dropped it on others. The few lead coins from the Krishṇa-Gōdāvari region of Andhra Pradesh attributed by Rapson to Vāsishṭhīputra Sivaśrī Satakarṇi[55] must also be attributed to Vāsishṭhīputra Śivaśrī Puḷumāvi. For none of these coins contains even the slightest trace of the name Sātakaṇi and their attribution by Rapson was based on the assumption drawn from the *Vishṇu Purāṇa* that Śivaśrī had Sātakarṇi as the second part of his name[56]. This assumption has given rise to some unfounded theories on the subject. But as will be shown shortly, there exists no evidence whatsoever to indicate the existence of any chief who could be called Śivaśrī Sātakarṇi. Therefore the missing letters after Śivaśrī on these coins, following the clue supplied by the Wategaon coins and the abovementioned silver potrait issues, have to be conjured up as *Puḷumāvisa*. Similarly, although A.S. Altekar and M. Rama Rao referred to the coins with the legends *Rañō Vāsiṭhīputasa Sivasirisa* and *Rañō Sivasirisa* respectively and attributed them to Śivaśrī, no such coins really exist. Altekar's coins in question are really Rapson's coins on which he reads the letter *sa* after Sivasiri because he cannot find *Sātakaṇisa* on these pieces. But Altekar forgot, by oversight indeed, the fact that not a single letter, not of course *Sa*, after Sivasiri is accommodated on the coins and

Rapson had admittedly supplied *Sātakaṇisa* conjecturally.[57] Further, we could not find a single coin with the legend *Rañō* Sivasirisa in Rama Rao's lists.[58] And lastly, the above mentioned Banavasi inscription mentioning Vāsishṭhīputra Śivaśrī Puḷamāvi's chief queen's *chhāyā-prastara* also belongs to his reign. The conclusions based on its erroneous attribution to Vāsishṭhīputra Puḷumāvi have therefore to be dropped.

Let us now review the relevant Purāṇic text in the light of the above facts. As we have seen above, after Gautamīputra's son and successor Pulomā most *Matsya* manuscripts name Śivaśrī Pulomā who is given a rule of seven years. The Purāṇas are reticent about the relationship between Pulomā and Śivaśrī Pulomā, but, as we have shown above, judging from the sameness of the metronymic they appear to have been uterine brothers. But did then they rule one after the other without a gap? A satisfactory answer to this question is provided by a manuscript (*e* Vā of Pargiter) of the *Vāyu Purāṇa* which alone mentions a Sātakarṇi with a reign lasting twenty-nine years and the next line indicates his place in the dynasty. In *e* Vā the next line runs as follows:

Śirasī putra Āvis=tu chatasrō bhavitā samāḥ[59]

As the line stands, it would mean that Āvi, son of Śirasī, would be king for four years. This line does not tally with any line in the dynastic text of the Purāṇas and is, therefore, obviously highly corrupted. The first half of the line actually seems to stand for *Śivaśrī Pulamāvis tu* which would, thus, give the correct form of the name of the ruler as Śivaśrī Puḷumāvi instead of Śivaśrī Pulōmā found in the *Matsya* manuscripts. As regards the remainder of the line, we have to accept the reading *saptaiva bhavitā nṛipaḥ* which is found in all the Matsya manuscripts[60] as more authentic and hold that Sivaśrī Puḷumāvi ruled for seven years. Thus, according to this manuscript of the *Vāyu Purāṇa*, Sātakarṇi was succeeded by Śivaśrī Puḷumāvi. The name of Śātakarṇi is omitted in the *Matsya Purāṇa* which furnishes the fullest list of the Andhra-Sātavāhana kings, but that is no reason to ignore him, particularly when we have enough epigraphic and numismatic evidence to vouch for his existence.[61] Sometimes we have to accept a reading found in a solitary manuscript in preference to one found in all other manuscripts if only it is warranted by some other evidence.[62] The case here is, however, somewhat different and better. Sātakarṇi is not only named in a solitary manuscript of the *Vāyu Purāṇa* and his existence proved by inscriptions and coins, we have other Purāṇic evidence also about him. The manuscripts of the *Vishṇu Purāṇa* have, as we have stated above, two sets of readings : (i) *Śātakarṇi Śivaśrīḥ* which would Satakarṇi Śivaśrī a single chief, (ii) *tasy āpi Sātakarṇis-tataś-Śivaśrīḥ* according to which Pulōmā (Vāsishṭhīputra Puḷumāvi) was followed by Sātakarṇi and the latter by Śivaśrī. Thus, the latter reading of the V*ishṇu Purāṇa* also names both Sātakarṇi and Śivaśrī exactly in the same order as in the *e*Vā manuscript of the V*āyu Purāṇa*. And as the separate existence of Sātakarṇi and Sivaśrī Puḷumāvi is known to have been attested by epigraphic and numismatic data, the second reading of the V*ishṇu Purāṇa* is preferable. The first *Vishṇu* reading must therefore be treated as erroneous.

It it this erroneous reading that has given rise to the naturally erroneous notion that Śivaśrī of the Purāṇas is identical with Sātakarṇi both of which must be discarded now. It may be pointed out in this connection that though we know of numerous coins of Sātakarṇi in silver and base metals and inscriptions, he is nowhere called Śivaśrī which by itself suffices to set this indentification at naught. The omission of Puḷōmā or Pulōumāvi after Śivaśrī in the *Vishṇu Purāṇa* may have been due to the fact that at the time of the compilation of its dynastic text the chief in question was popularly known as Śivaśrī and this by itself may have been found enough to disclose his identity. Alternatively, it may have been dropped deliberately with a view to distinguish him from the other Puḷumāvi who happened to be his uterine brother. But what seems to have confused modern historians is the omission of Pulōmā or Pulumāvi after Sivaśrī in the *Matsya* list by Rapson and in the constituted list by Pargiter.

It would follow from the foregoing discussion that both Sātakarṇi and Śivaśrī Puḷumāvi were historical personages in their own right and they aught not to be confused with each other. As for the non-mention of the former in the *Matsya* text which otherwise supplies the fullest list, the line mentioning him may have been dropped from it by oversight and must be supplied from the *e*Vā manuscript of the *Vāyu Purāṇa* which appears to have preserved the tradition correctly in this matter.

The next question we must answer is who came first, Sātakarṇi or Śivaśrī Puḷumāvi? As we have seen above, in the *e*Vā manuscript of the *Vāyu Purāṇā* Sātakarṇi is mentioned before Śivaśrī Puḷumāvi which evidently represents the tradition about the order of succession. The same conclusion may be drawn from the *Vishṇu Purāṇa* which also names Sātakarṇi before Śivaśrī. Actually, one of the readings supplied by the V*ishṇu Purāṇa* states unambiguously that Sātakarṇi was followed by Śivaśrī : tasy-*āpi Sātakarṇis-tataḥ Śivaśrīḥ*. It may therefore be reasonably held that Śivaśrī Puḷumāvi came to throne after his brother Vāsishṭhīputra Sātakarṇi. This will also explain why Śivaśrī Puḷumāvi had a short reign of just seven[63] years. He was preceded on the throne by his brothers Vāsishṭhīputra Puḷumāvi and Vāsishṭhīputra Sātakarṇi who had long reigns covering as many as twenty-seven and twenty-nine years[64] respectively and was therefore naturally an old man at the time of his accession as we see on his known silver issues. This also explains Skanda Sātakarṇi's short reign lasting just three years.[65] It is interesting to note in this connection that Skanda Sātakarṇi's portrait on his only known silver coin is that of fairly old man.[66]

It may perhaps be argued that admission of Śivaśrī Puḷumāvi as a separate king would raise the number of the Andhra-Sātavāhana monarchs to thirty-one which is against the commonly accepted total which is thirty. But it must be remembered that there is no complete agreement among the Purāṇas themselves on this issue. Even those texts which aver that there were thirty kings actually do not give as many names and the *Matsya* which says that there were nineteen kings actually names thirty. Then again, there are some kings like Kumbha Sātakarṇi, Karṇa Sātakarṇi and Śaka Sātakarṇi among later members and Vēdiśrī, Śaktiśrī and Sātavāhana among earlier ones who are known from their inscriptions and coins but are not named in the Purāṇas and whose admission into the dynasty would raise the total much beyond thirty. It appears therefore that there was no sanctity attached to the number thirty and this need pose no hindrance in arriving at an otherwise valid conclusion.

To sum up, the following points emerge from the above discussion.

I. Śivaśrī Pulōmā (or Puḷumāvi) had a separate identity and should not be confused either with Vāsishṭhīputra Puḷumāvi or with Vāsishṭhīputra Sātakarṇi who were related as uterine brothers. The coins with the legend *Rañō Sivasiri Puḷumāvisa* or *Rañō* V*āsiṭhipūtasa Sivasiri Puḷumāvisa* and the Banavasi inscription referring to the sculptured stone (*chhāya-prastara*) belong to him.

II. Sātakarṇi named in the V*ishṇu Purāṇa* and a manuscript of the V*āyu Purāṇa* was also a historical personage. His name was dropped from the *Matsya* list due to oversight on the part of the copyists. There is nothing to show that he assumed *śivaśrī* as an honorific and the few lead coins from coastal Andhra said to bear the legend *Rañō Vāsiṭhiputasa Sivasiri Sātakaṇisa* actually belong to Śivaśrī Puḷumāvi, the last word of the legend, *Pulumāvisa* and not *Sātakaṇisa* as supposed by Rapson, being off the flan.

III. There are no coins with the legend *Rañō Vāsiṭhiputasa Sivasirisa* or *Rañō Sivasirisa.*

IV. The correct reading of the relevant portion in the *Vishṇu Purāṇa* is *tasyāpi Śātakarṇis-tataś-Śivaśrīḥ*, not *Sātakarṇi Śivaṣrīḥ.*

V. Sātakarṇi preceded Śivaśrī Puḷumāvi on the throne.

VI. There is no need to adopt the reading *Śivaśrīr vai Pulomāt tu* found in a solitary *Matsya* manuscript.

VII. The number thirty of the Andhra-Sātavāhana kings cannot be regarded as the correct one.

REFERENCES

1. F.E. Pargiter, *The Purāṇa Text of the Dynasties of the Kali Age*, p. 42, lines 26-27 and 29.
2. This point will be elaborated later in the paper.
3. The evidence of the exceptional *Vāyu* manuscript will be dealt with in the sequel.
4. For the constituted list, see Pargiter, *op. cit.*, p. 36.
5. Its list of Andhra-Sātavāhana chiefs is broken up into three sets. It begins with Nos. 11, 18, 19-21; then reverting back it mentions Nos. 12-15, 24*a*, 25-30; and long afterwards it refers to 1-4 and 6-10. See *ibid.*, p. 36.
6. *Ibid.*, p. 42, line 28.
7. This line will be discussed later in the paper.
8. *Ibid.*, p. 37.
9. *Ibid.*, p. 36.

10. *Ibid.*, p. 37. But Pargiter was so very obsessed with the correctness of the number 30 that he put the name of Sātakarṇi within brackets calling him 24*a*. See *ibid.*, p. 36, constituted list.
11. *Ibid.*, p. 42, note 1.
12. *BMC*, *AWK*, etc., p. lxvii, column 4. As will be shown in the sequel, he and, following him, others attributed some coins, though erroneously, to *Śivaśrī Sātakarni*.
13. Pargiter, *op. cit.*, p. 42, note 1. This reading with only a slight modification (*tasy-āpi Śānta-karṇis-tataś-Śivasriḥ*) is found also in the Gita Press edition of the *Vishṇu Purāṇa*, p. 360.
14. The *e* Va reading will be discussed latter in this paper.
15. *BMC*, *AWK*, etc., p. 29, Pl. V. 115 and 116.
16. *Proceedings of the Asiatic Society of Bengal*, 1903, p. 117.
17. *JRAS.*, 1903, p. 306. While discussing the contents of the Chanda hoard, he makes no reference to the coins with the legend *Sivasiri-Puḷumāvisa*. See *BMC*, *AWK*, etc., introduction, pp. lxxx-lxxxi.
18. *Numismatic Supplement*, No. XLV, Article 318.
19. *JNSI.*, ii, p. 88, Pl. VIII. 13 and 14.
20. *Ibid.*, p. 88; *Studies in Indology*, iii, p. 40.
21. *Ibid.*, p. 41; *JNSI*, ii, 88-89.
22. R.C. Majumdar (ed.), *A History and Culture of the Indian People*; ii : *The Age of Imperial Unity*, p. 205.
23. *ASWI*, v, p. 78; *I.A.*, xii, p. 273.
24. *The Age of Imperial Unity*, p. 205 and note 1.
25. K.A. Nilakanta Sastri (ed.), *A Comprehensive History of India*, ii, p. 321.
26. *Ibid.*, p. 322.
27. *Ibid.*, p. 322, note 2.
28. G. Yazdani (ed.), *The Early History of the Deccan*, p. 129.
29. *Ibid.*, p. iii.
30. *Ibid.*, p. 128.
31. *Ibid.*, pp. 85 (*Matsya* list of the Andhra kings), 128.
32. *Ibid.*, pp. 107, 111.
33. *Ibid.*, p.
34. *JBBRAS.*, iii, pp. 79-84.
35. He regarded Śivaśrī Pulumāvi as a grandson of Vāsishṭhīputra Pulumāvi. See his *Sātavāhana Coins in the Andhra Pradesh Govt. Museum*, p. 20.
36. *Ibid.*
37. *Ibid.*, He reads, wrongly of course, *rajño* instead of the usual *raño*.
38. *JNSI.*, xxxi, p. 153. For earlier attribution, see *ibid.*, ii, p. 88.
39. Pargiter, *op. cit.*, introduction, pp. x-xi. Pargiter's view that the dynastic account as it stands in the *Matsya*, *Vāyu* and *Brahmāṇḍa Purāṇas* is a Sanskritised version of the older Prakrit *ślokas* does not appear plausible.
40. *JNSI.*, xxxi, p. 154.
41. *Ibid.*
42. *Ibid.*, xxxiv, pp. 210-12.
43. *Studies in Indian Epigraphy* (*JESI*), i, pp. 34-39.
44. *Sātavāhana āṇi Paśchimī Kshatrapa vāṁchā Itihāsa āṇi Korīva Lēkha* (Marathi), pp. 31-34; 57-59.
45. Of Shri Daulal Johri.
46. It has been published in *The Journal of the Academy of Indian Numismatics and Sigillography*, iii (1979-80).
47. *Andhra Pradesh Journal of Archaeology*, Vol. i, part ii, pp. 105-113.
48. The legend has been restored in full by putting the two coins together.
49. *JNSI.*, xiv, pp. 1-3, Pl. I. 1-2; xxxviii (i) pp. 12-16, Pl. I.4; *Archaeological Studies* iii, p. 12, Pl. I.3; *The Journal of the Academy of Indian Numismatics and Sigillography*, iii.

50. It was employed as such by Āpilaka as will follow from the legend of his only known coin.
51. It is perhaps due to the fact that they were brothers that the Purāṇas do not specify the mutual relationship of these rulers and are content merely by referring to their rule one after the other. It is no doubt true that some manuscripts refer to Śivaskanda Sātakarṇi as Śivaśrī Pulomā's son. But this reading is undoubtedly defective, for in that case while we shall have the word 'years' (*samāḥ*), the years themselves will be left unspecified. The correct reading of the relevant line therefore seems to be *Sivaskandaḥ Sātakarṇir-bhavishyati samās-trayaḥ*, *i.e.*, Sivaskanda Sātakarṇi will rule for three years.
52. *Numismatic Supplement*, No. XLV (*JASB.*, 1934), p. 61.
53. *JNSI.*, ii, p. 88, Pl. VIII. 13-14.
54. M. Rama Rao, *Sātavahana Coins in the Andhra Pradesh Govt. Museum*, pp. 54-59; *List of Published Sātavāhana Coins*, pp. 16-17; Ajay Mitra Shastri and R.K. Sethi in JNSI, xxxvii, pp. 27 and 30, Pl. V. 8-10.
55. *BMC, AWK*, etc., p. 28.
56. *Ibid.*, Introduction, p. lxvii.
57. This is clear from a glance at Rapson's catalogue where merely five small strokes within a square bracket are given after Sivasiri.
58. *Sātavāhana Coins in the Andhra Pradesh Govt. Museum*, pp. 54-59; *List of Published Sātavāhana Coins*, pp. 16-17.
59. Pargiter, *op. cit.*, p. 42 and notes 1-4.
60. *Ibid.*, p. 42, line 29.
61. All the coins with the legend *Raño siri-Sātakaṇisa* in the Tarhala hoard seem to belong to him. Many copper and lead coins with similar legend have been attributed to him. His silver coins call him *Vāsishṭhīputra*. An inscription of his reign has been found at Kaṇheri.
62. I have shown it with reference to a verse in the *Kuṭṭanīmata* of Dāmodaragupta. See *Purāṇa*, xii, pp. 160-66. Also see my *India as seen in the Kuṭṭanīmata of Dāmodaragupta*, p. 66, note 3.
63. Only four years according to the reading in the *e*Vā manuscript of the *Vāyu Purāṇa*.
64. Mirashi, by oversight, gives the reading *ekōna-viṁśatiṁ* (=19) instead of *ekona-triṁśatim* (-29) given by Pargiter. See *Sātavāhana āṇi Paśchimī Kshatrapa vāṁchā Itihāsa āṇi Korīva Lekha*, p. 32. Elesewhere he gives the correct reading.
65. In view of the presence of a large number of coins issued by him Mirashi expresses doubts about the correctness of such a short regnal period. See *ibid.*, pp. 33-35. But the number of coins is no definite indication of the length of a reign.
66. See *Archaeological Studies*, iii, Pl. I.3.

22

EARLY TRANSPORT VEHICLES FROM GANGA VALLEY

C. MARGABANDHU*

This paper is mainly concerned with the transport vehicles during the early Historical times and the evidence is based mostly on the recorded details from Ganga Valley sites. Not many excavated sites have yielded evidence but the simple characteristic utilitarian carts are known from Bāngaṛh, Champā, Hastināpura, Kumrahar, Rājghaṭ, Tilaurakot *etc.*, while the predominant and an eloborate type has been recorded from Atranjikhere, Bhiṭā, Kaúsāmbī, Mathurā *etc.*[1] Greater emphasis is laid on this type as this seems to be a common variety of vehicles used in Gaṅgā Valley. Another typical-shaped model vehicle has also been identified from a few sites in eastern Indian at the ringe of Gaṅgā estuary, recovered mostly from Chandrakētugaṛh and its neighbourhood.

Hence the evidence of the types of vehicles consist of the following :

(i) Simple carts, small in size to carry one or two passengers and limited load of goods.
(ii) Developed carts and larger open vehicles with frame and decorations.
(iii) Vehicles with life-size human beings or divinities seated on animals in two or four, made solidly and wheels joined separately.
(iv) Chariots drawn by four horses depicted in round plaques with one or two persons in the vehicle.

All these types along with various features raise some problems of chronological and cultural implications. Primarily it is difficult to postulate any chronological evolution in terms of simple to ornate types or in other words any structural modifications and introduction of any new types of physical innovations. This is mainly due to the lack of primary evidence. The available model frames at the most suggest, the prevalence and characteristic types part of them existing simultaneously side-by-side during the period.

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Secondly, it is also rather difficult to enunciate a discussion in respect of the early appearance and use of transport vehicles in Gaṅgā Valley. This also depends upon many factors especially in terms of settlements and their growth. A number of settlements along the river basins have already come up in substantial proportions to identify them as permanent in nature from about the fourth and the third century B.C. Some means of transport could have been evolved by gradual clearance of the tracks and pathways, for basic communications. What are the various social reasons and economic factors that necessitated the growth and later development of the fastly enlarging villages to small towns and larger cities need not detain one to the relevance to the fact that equal need also arose for transport of goods and men by vehicles and other means. All these aspects are to be taken into account when new innovations crystallised into new forms and possibly the means of transport also underwent change and led to a few new types of vehicles for which clear and precise evidence is not forthcoming.

The early evidence so far known of the use of simple type of carts are small in proportions of which a few model-carts are in evidence. They are found datable during the third and the second century B.C. They comprise of simple cart-frame made in terracotta with an open back possessing vertically pierced holes or sides for taking stakes of wood. There is a hole at the yoke-end for fastening a string to pull the cart. This device could be adjusted depending upon the use of one or two animals. The holes at the middle of the frame took possibly longer stakes which protected the underside of the frame in pairs between which the easily removable axle of the wheels was held. Such bare frames have been recorded from many sites of the Gaṅgā Valley.

A typical, yet simple wheeled-cart has been reported from Hastināpura. It possesses a flat or solid frame with raised edges on all sides and a vertical hole at yoke-end for the animal or animals. There was a horizontal hole at centre for the wheelaxle to pass through. It is meant both for carrying 28 passengers and goods. More or less similar toycart has also been known from Tilaurakot.[2] It is also protected by a raised front and sides, the back being open. The raised part is damaged hence it is difficult to surmise whether the sides were sloped to the rear or the sides of the toy were curved. Through the central part of the body runs a hole for axle. It has been decorated also at the top surface between axle and yoke-end with three stamped flowers composed of eight raised pellets, one being in the centre and radiating raised rays beyond the pallets; below the pallets are three horizontal zigzag lines in pin-holes beneath which are vertical line in pin holes. Similar flowers, four in number are also found on the front which is further ornamented with stamped solar symbol.

Two more of them[3] recovered here are quite interesting. One of them is a two-wheeled toycart with a front in the semblance of the head and neck possibly of a ram with diamond-shaped eyes. A band with oblique incisions has been applied on the forehead. It has a large transverse hole for axle and the neck of the animal has been perforated for the yoke to tie-up which looks natural and realistic.

Another one is also similar, but the yoke-end is bifurcated and possibly have the heads of two animals identified, in this case as horses. The bottom portion bears criss-cross indentations.

The compact nature of the cart-frames found indicate that though they were simple they in fact were sturdy in nature which could have traversed difficult terrain of the region with great force.

A simple type in frame, prepared in summary fashion but in an elegant manner has been reported from *Champā*,[4] made from tortoise-shell. It possesses a body frame long and rectangular and at the yoke-end curving in triangular-cut sharpness. It has a horizontal perforation at the rear end for the axle and a vertical hole at the yoke-end for the animals. It has two solid wheels without spokes. All along the boby of the frame and the wheel, surfaces have been decorated with double circular designs, uniformly spaced at intervals. The details of the toy-cart and measurements reveal its proportionate design to mathematical precision. The cart is 12 cm. in length. The length and thickness of the body are 11 cm. and 12 cm. respectively. The wheel dia is 5.5 cm and the hub of the cart is 6.3 cm. The breadth of the cart including the wheel is 6.3. This simple nature of the vehicle clearly indicate its general, but popular use as it is reported in the long-time-span of the fifth-fourth and the third century B.C. It is also substantiated by its prevalence and availability in numerous sites of the contemporary times (NBP-Ware phase) in Bihar.[5]

Yet another interesting cart-frame has been found depicted in a terracotta tablet known from Bāngaṛh[6] detable to about the second century B.C. The design has been executed in such a small space with full details without leaving any aspect of the model frame. It is similar and simple as those found at other sites but the details reveal an idea about who the frame was prepared. The cart frame in this is not rectangular but has a curved tip. Moreover, the frame has been made with horizontal bomboo posts with the yoke-end in smaller and narrow proportions. The yoke-end is also curved above. It possesses a central axle evenly spaced for balance. Though it looks tiny, it is a well represented model known so far, perhaps used more for transport of material than meant for carrying passengers.

Pieces of model cart-frames have also been reported from Kumrahar.[7] One of them is a small frame with the axle and yoke indicated by the perforations. Another is also identical in design but with some new features. In front the rider of the vehicle has been depicted along with the horizontal yoke which is made possibly of a thick bamboo or log of wood. The rider in the yoke is depicted in round. They belong to the second-third century A.D.

A few of similar proportions have also been recovered from Rājghaṭ[8] but belonging to the sixth and seventh century A.D. These frames have solid cores with two perforations for the attachment of wheels on both ends.

These are some of the recorded findings with descriptive details that give an idea of the transport vehicles known from early sites in the Gaṅgā Valley. Such sites as Balirajgarh,[9] Bhiṭā,[10] Kumrahar,[11] Mathurā,[12] Noh,[13] Pāṭalīputra,[14] Sonpur,[15] Śrāvasti,[16] Vaiśāli and others, have also yielded similar frames, the details of which are not known.

A problem in this respect is the availability of toy-cart wheels both simple and decorated from the time span of the third and the second century B.C. But no corresponding model frames have been found. Such evidence is reported from most of the Gaṅgā Valley sites.

The next stage in the development of the toy-carts occur sometime during the latter part of the second century B.C. Some change in technological features, with broader frames, thicker yokes and strong body with corresponding refined cart-wheels seem to develop during this period. Variety in the treatment of the outer frames suggest new innovations thereby indicating the sophistication of its use in larger number and its popularity in various urban centres.

A few sites have revealed model frames in full form. They include Atranjikhere, Bhīṭa and Kaúsāmbī. Most of them are surface finds while a few are found from stratified deposits.

These cart-frames could be classified into two types.

1. Cart-frame with decorated sides depicting all the features such as axle, central pole and wheels.
2. Bullock-cart with the full-frame depicting the animals in front as a realistic model with open back, highly decorated side planks and semicircular ends and passengers seated inside the vehicle.

The first type is a developed vehicle than those described earlier. For the first time it is found with side-frames suggesting a covering above, which could possibly be of leather, bamboo, thatch or reed-mats. A classical example of this type has been reported from Atranjikhera.[17] It is ascribable to the latter part of the second century B.C. It is an open vehicle with two wheels having hubs and spokes. It is prepared from piece-moulds and then carefully joined together. What is interesting is the decorative features of the outer frame of the model. Flower rosettes are arranged in three rows divided with three poles horizontally placed bordered on all sides with dotted motif. The sidetops are not curved but straight. Possibly some cushions were provided inside for comfortable sitting. It is just a typical cart-frame well built, drawn by single or two bullocks which could have been a popular means of transport during this period.

Slightly modified in representation is the second type which has been depicted in visual portraiture of the bullocks used for the vehicles. In an effort to show the bullocks yoked to the cart, the coroplast is deviated from the real model and the pair of bullocks introduced in front.

It is a popular type at Kaúsāmbi.[18] Many of them are rough and crude, but quite a few are really sophisticated.

What is more striking is the variety found with decorative details. They have been prepared from moulds and retouched with details of decorations that possibly represent the exact replicas of the original vehicle frames.

The earlier specimens datable to the second and the first century B.C. are more ornate while those of later times (datable to the first two centuries of the christian era) are rough and crude. All these are characterised by a front view showing a bullock-cart under a yoke and the front portion closed. This is revealed by a cart-frame in which the front is closed by a wall with profuse decoration consisting of small and big rosettes with curved bamboo covering above in a semi-circular fashion. This type visualises a cart with a closed front thereby affording privacy and security for travellers. The driver of the vehicle probably sat over the yoke pole as it is the fashion in modern times. The perforation of the central yoke pole is prominently visible. At times the visual side-effect is also created by indicating the axle perforation. The front wall of the cart-frame[19] has been decorated profusely with a border of double rosettes from which fall down a row of hanging bells. The animals have garlands on their necks. Many of this type of bullock-yoked frames were found with varying stamped decorations consisting of lotus, flower garlands and hanging bells.[20]

To cite a classic example, Kaúsāmbī[21] has yielded one of the best representative specimens which gives a good idea of the chariot or a sophisticated cart. It belongs to the first century B.C. It carries a party of merrymakers. The body of the *ratha* simulates a wooden proto-type. Its bottom is slightly concave and two side walls are also concave with the top flaring out. The interior is furnished with cushions. On the lower portions of the side walls are carved rosaces above and a line of rosaces below, the two enclosed within grooved lines. The two frames are attached at bottom. There are two holes, one transverse for the axle and the other longitudinal for the forward poles.

A group of four men and two women are seated inside. The theme is erotic and Bacchanalian. The ribbed decoration inside reveal the cloth-cushioned sides for a comfortable sitting of the passengers. The end side is closed by a bamboo covering as the scratched lines indicate its features.

The model has been produced from various moulds. The wheels were separately made. Stratigraphically, it has been found to occur by about the first century B.C. or even earlier.

Similar models with a party of passengers have also been reported at Bhiṭā datable to the first century B.C. The party consists of six figures, male and female carrying food, drinks and musical instruments.

A comparision of the frames found in Bhiṭā and Kaúsāmbi lead to some factual discussion of their prevalence as wheeled vehicles in the contemporary times. The earlier ones have straight sides and open back and are smaller in nature. They are simple with decorations of rosettes and hanging bells exhibiting the sophisticated and yet practical purpose of their utility. The second type seems to be larger vehicles to accommodate more passengers and semicircular curved sides with more decoration. Both of them are found without the outer cover. Generally the sides are open but the rear side is closed as in the Kaúsāmbī example. Their availability in levels of the second and first century B.C. at Kauśāmbī and Bhiṭā reveal that they were locally manufactured.

Another type of a model-frame possesses novel features reported from Chandraketugaṛh and its neighbourhood.[22] It consists of human beings or possibly divinities seated on animals—drawn in rows of two or four made in solid form and wheels shown separately. The animals represented are in pairs. The entire form is shown in the circular fashion revealing its realistic portraiture. The figure was prepared from a single mould and then touched upon with details. The features are shown in basrelief with slight depth.

Some of them have also been identified as Indra or *Kubēra* on elephant, *Agni*, riding in a chariot drawn by a pair of rams, a pair of bulls with a divine personage possibly Śiva.

As stated earlier, it seems to be a new type of representation revealing the functional purpose of a cart-frame or a chariot. It has a long chronological range datable from the third century B.C. to the fourth century A.D.

A fourth type that has been recovered from the Gaṅgā Valley[23] represents a chariot model. It is depicted in circular plaque made from a single mould. The details represent a vehicle drawn by four horses with one or two persons in the chariot, possibly for a royal or noble stature; the other one has a seated charioteer holding a whip driving the steeds while the main figure is standing aiming a bow.

The plaque from Pāṭalīputra has a warrior aiming a bow and arrow interpreted as the Sun God removing darkness by his rays of light. He has a charioteer possibly Aruṇa holding the animals by his whip. The Sun God has an armoury at back. An interesting aspect is the depiction of the wheel in motion. The ovaloid feature indicates the fast rotating wheel which could be visualised only with its lengthy profile which is quite realistic. The circular frame itself and the representation of Sūrya in his chariot in addition constitute an unique representation revealed in this terracotta plaque.

In the Kaúsāmbī specimen the model is technologically similar but other features depicted suggest a conventional representation and possibly is later than the specimen from Pāṭalīputra. It is quite an interesting fact to note that the figure is holding the *chhatra* (umbrella) on the left hand and the whip or a long rod in his right hand. He is seated in *padmāsana*.

What is more interesting to emphasise is the technological change and the development in the manufacture of wheeled vehicles, that were gradually introduced as the means of transport. It is not clear as to when this form of an advanced type of vehicle was put to use, but its occurrence from about the first century B.C. as reveald by these plaques points to the existence of their use even earlier.

Since their place of occurrence are the royal cities, their prevalence and use was possibly restricted to the royalty or the nobility especially to be used on some important occasions.

The innovations in the cart-frames from simple type datable to the fifth and fourth century B.C. and later development as revealed by cart-frames of an advanced type postulate an increase in the need of the requirement of the people to develop the means of transport. Whether it has any corresponding effect on the fast development of the communication system is a fact that is yet to be revealed.

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23

THE PLACE OF ŪR IN THE ECONOMIC AND SOCIAL HISTORY OF THE EARLY TAMILNADU FROM A.D. 750 TO 1350

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This paper makes an attempt to outline the nature of the village community of per-Vijayanagar Tamil Nadu by analyzing the inscriptions relating to the non-Brāhmaṇa peasant villages. The Brāhmaṇa villages (*brahmadēyas*) have been studied elaborately by many scholars.[1] But the available literature on the *ūr*, the peasant village, is very sketchy. Even Prof. K. A. Nilakanta Sastri did not devote more than a few paragraphs to its treatment.[2] This is mainly due to the fact that profuse material was available relating to the *sabhā*, the communal assembly of the Brāhmaṇa villages, when compared to that relating to the bodies of the ordinary peasant villages. The fascination of the complex *sabhā* organization has been a hurdle in the way of paying attention to the real significance of the *ūrār* ('those of the *ūr*'), the communal assembly of the *ūr*. This is rather unfortunate since the knowledge relating to the structure of the peasant villages would have given more clarity to the picture of the Brāhmaṇa village itself. Moreover basing on the statistics for the Chōḷa core area,[3] which had the densest *brahmadēya* settlements it can be asserted that the ordinary peasant villages accounted for seventy-five per cent of the total settlements. Only about twenty per cent of the villages were fully or partially *brahmadēye* villages.[4] However, there are available but about 250 inscriptions among the published ones (about 5,000) from the Tamil country[5] relating to the activities of *ūrār*, for the period between A.D. 750 and 1350.

Contents and Stratification

In Tamil all villages were known by the generic term *ūr*. The names of ordinary villages which endured from time immemorial do not show generally any peculiarity as those of eleemosynary and newly created mercantile villages.[6] These ordinary villages which were enjoying just customary rights and privileges and were subject to normal governmental revenue assessment were known as the *veḷḷānvagai* (literally 'the cultivating kind'). A village (in the chōḷa area) normally included within its confines, habitation quarters, cremation grounds, drinking water ponds, irrigation channels and cultivated lands. In the case of habitation quarters, three separate quarters are mentioned : (1) the quarters of *ūr* or landholders/cultivators (*ūr-irukkai*); (2) that of the *kammāṇa* or artisans (*kammāṇa-chēri*); (3) that of the *paṛaiya* (*paṛai-chēri*). From the detailed information provided in two inscriptions of Rājarāja I (c. 1014)[7] it is understood that in the fertile localities the villages had the following range of areas; a third of the villages had an average area of about half a square mile (maximum being 1.5 square miles); another third, about three-tenths of a square miles; and the rest, about one-tenth and less of a square mile. About ninety-five per cent of this village area was under cultivation.

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From the mention of three kinds of habitation quarters referred to above it may be suggested that the village society had three broad strata as follows : (1) landholders-cum-cultivators (*ūr*), (2) artisans (*Kammāṇa*) and (3) *paṛaiya*. The *paṛaiya*, along with some other allied communities,[8] provided agricultural labour and occupied the lowest position in the social hierarchy. The artisan groups such as smiths, carpenters, weavers, etc. occupied the middle position and the top position was occupied by the landholders-cum-cultivators. The economic position of the lowest category was unenviable and the social position was very depressing at least to some sections of this category, particularly from the twelfth century onwards. The artisans enjoyed a status in conformity to their middle position. The evidence relating to both these middle and lowest rungs is comparatively meagre and has to be analyzed further to understand them adequately. Therefore only the topmost rung is considered here as the relevant evidence is somewhat better documented and moreover this group, having direct involvement in land, enjoyed parity with the ritually superior Brāhmaṇas.

The owner-cultivators of the peasant villages were denoted by the term *kāṇi-uḍaiyār* and the tenant-cultivators by the term *uḻu-kuḍi* (literally 'tilling *kuḍi*'). Sometimes the term *kuḍi-makan* denoted both. Both these people were collectively known by the term *veḷḷāḷa*.

Ūr, the corporate body of landholders :

It is possible to estimate the number of landholders of an average village if we analyze the inscriptions which mention *ūrār* or *ūr*, the corporate peasant assembly. From the facts that the generic name of the village was *ūr*, that the term *ūr-irukkai* denoted the habitation quarters of the cultivators only and the corporate body itself was known as *ūr*, it can be suggested that this body was one of fundamental importance and that the body consisted of only the cultivators as members. It may even be suggested that they were the landholding cultivators and not the tenant-cultivators.

The strength of the corporate body can be deduced from the *ūr*-gathering enumerated in some inscriptions.[9] There are seventy such cases available from the published material. Of these seventy cases, eleven are one-member *ūr* and eight, two-member ones. As most of these cases of one and two members come only from two inscriptions mentioning some collective gathering of a number of villages, the one or two members were perhaps just selective representatives, instead of themselves constituting the full body. Among the other cases twenty-four *ūr* bodies have members ranging from 3 to 5; fifteen, ranging from 6 to 10; six, from 11 to 14; two, 19; two, 23; one, 25 and one, 29. From the above data it semes that most of the villages had *ūr* of less than ten members only.

The reasons for considering these members as the only landholders of the particular villages may be stated now. One is, this body was not a formally constituted one as those of the Brāhmaṇas were. That is, there did not seemingly arise the question of including one person to the exclusion of another on property and educational qualifications. Two, in almost all cases involving the activities of this body, the activities related to land only: sale of land, gift of land, exemption of land taxes, *etc.*, Therefore there is no reason for the presence of other people than the landholders. Three, they alone paid the tax on land as understood from some very explicit evidence. Four, the naming pattern of the *ūr* members is suggestive of their landholding connections.

In most cases the names of the members are found to contain in their first segment a village-cum-*kiḷān* or village-cum-*uḍaiyān*,[10] The second component *kilān* or *uḍaiyān* means possessor, so the whole segment would mean that the particular person was a possessor of the particular village. The usual translation of such names as the 'headman of a village' though not far out of the mark, obscures the real significance of the term. That is, the *ūr* members were primarily possessors of the village, *e.i.*, the village land. Secondarily they were of course the leading people of their village.

This suggestion is compatible with the areas of the villages indicated above. A big landholder will be having about 10 *vēli* or 65 acres of land and small holder, about 2 *vēli* or thirteen acres. It may be recollected that an average Brāhmaṇa donee was assigned a share of one or two *vēli* of land only.[11]

Spatial mobility of landholders :

There is another aspect which should not be overlooked. If the suggestion regarding the 'possessors of a village' basing on their names is valid, then all the members of a particular *ūr* should be *uḍaiyān* or *kiḷān* of that village only. But actually in many cases the same *ūr* is found to include *uḍaiyān* of different villages. For instance, in Kōnilam, a village in Thanjavur district, are found, besides *uḍaiyān* of Kōnilam, those of Veṇṇaimaṅgalam, Chē, Virāyūr, Kīḷaiyil, Milaṭṭūr and Neṛkuppai.[12] This may be due to the spatial mobility of the people concerned. This kind of mixed *uḍaiyān* occurs in big villages as well as in *dēvadāna* villages where there was always land for prospective immigrants. Unfortunately we do not get any names of *ūr* members of the 10th century and earlier when we could expect uniformity in *uḍaiyān* names since spatial mobility was not so conspicuous then. Even in the 12th century we have a few villages each under *uḍaiyān* of the same village. Thus in 1126 the village Kuḍanagar was held by one Iravi Eḻuvan, the *uḍaiyān* of Perunduṛai and his three sons and another person, himself an *uḍaiyān* of Perundurai. In the subsequent passage all these five are collectively called the *uḍaiyār* (in plural) of Perunduṛai.[13] Here also it may be noted Perunduṛai is different from Kuḍanagar.

Another related fact is that many erstwhile non-cultivators became settled cultivators. And so they would also form the *ūr*. Thus a 13th century inscription[14] mentions a place by name Viraiyāchilai which had in its *ūr* eight members, three from the *araśa-makkaḷ* and five from the *maṛava*. Both these were once martial communities.

Mode of landholding :

In any case there is no reason for the number of landholders being different from that suggested above. But actually whether these limited number of persons were owning the village lands collectively or individually is to be ascertained. It has been demonstrated by Prof. N. Karashima that there was only collective holdings up to the 10th century.[15] It may also be suggested that gradually there was developing individual ownership, basing on the facts that land sales and purchases by non-Brāhmaṇa individuals show an increase in the course of later centuries[16] and that there was a gradual increase in the service tenures.

Ūr vis-a-vis sabhā :

Since the *brahmadēya* was also an agrarian village, *e.i.*, the Brāhmaṇas were also landholders, it may be asked why the Brāhmaṇas would not have constituted themselves the *ūr*. As the Brāhmaṇas were not themselves cultivators and as their pre-occupation was with the learning and dissemination of the Vedic lore they kept necessarily aloof from the peasant folk. But they had their own communal assembly, *e.i.*, the *sabhā*, which managed the proper exploitation of the resources that were bestowed upon them. But the original cultivators or the tenant-cultivators who chose to stay in their original place had their own *ūr*. Usually such *ūr* bodies were active in the *piḍāgai* (hamlet) that surrounded and were parts of the main *brahmadēya* villages. In some *brahmadēya* villages the *ūr* enjoyed an equal status with the *sabhā* of the same village so that both the *sabhā* and the *ūr* of the same village figure together in many public transactions.[17] But this kind of joint activity within one and the same village ceased after the 10th century. It seems that there was some kind of misunderstanding developing thereafter between the Brāhmaṇa and the non-Brāhmaṇa landholders and we have an enigmatic order of Rājarāja I to the effect that the lands of non-Brāhmaṇa landholders within *brahmādeya* villages should be sold away.[18]

Pērilamai-nāḍu :

The tenant-cultivators of the *brahmadēya* villages were known as *pērilamai* or *veṭṭi* besides, of course, *uḷu-kuḍi*. Usually the term *veṭṭi* (considered equivalent to the Sanskrit term *vishṭi*) is taken to mean forced labour or unpaid labour rendered for the common good of the community. Though this term is used in this sense in Tamil inscriptions in many places, it is also used in the sense of tenant. Moreover, the term *pērilamai* (also spelt as *iḷamai* or *ila-makan*) which definitely denoted tenant is treated as an equivalent of *vaṭṭi* in an inscription.[19] The term *pērilamai* is treated as an equivalent of the Veḷḷāḷa also.[20] The *pērilamai* people are found playing not an insignificant role in *brahmadēya* as well as in a few mercantile villages.[21] The suggestion regarding the *pērilamai* can be elaborated with reference to the territorial units called *pērilamai-nāḍu* that lay about some of the *taniyūr* and attached to the latter. These *pērilamai-nāḍu* were, territorially speaking, grouping together of all the hamlets attached to a big *brahmadēva* village (that was given the status of *taniyūr* or independent village) and socially they were the assemblies of the tenant-cultivators living in the hamlets.[22]

Ūr vis-a-vis Nāḍu :

The point leads us to the consideration of the *nāḍu*, the very important territorial and social unit above the village. As in the case of the *ūr*, here also one and the same term, *nāḍu*, denoted both the territory and the assembly of that territory. For the assembly the term *nāṭṭār*, meaning 'those of the *nāḍu*', is also used. An analysis of all the information relating to the *nāḍu*[23] drives us to the conclusion that the *nāḍu* was primarily grouping of agricultural settlements (*ūr*) and not administrative subdivisions. The areas of the *nāḍu* ranged from eight to forty square miles. The assembly of the *nāḍu* was constituted of the leading landholders or *ūrār* of the peasant villages within the particular *nāḍu*. Though the Brāhmaṇas were themselves landholders in the *brahmadēya* villages included in a *nāḍu* (territory) they were not considered members of the assembly. However, their representatives, called *brahmadēya-kiḷavar*, were leading participants along with the *nāḍu* members in big gatherings transcending village limits.[24]

It is generally with the *nāḍu* assemblies that the king's government made the revenue settlement. That is, the villages played governmental roles only as part of their respective *nāḍus*. Most of the activities of the *ūr* bodies within the confines of their villages were just local, communal matters. Vice verse, except during the collection of taxes the Government had no function to perform in the villages.

Ūr's ascendancy :

The record of activities of the *ūr* when compared to that of the *sabhā* gives some interesting information.[25] The activities of the *sabhā* show a gradual decline and became insignificant by the end of the 13th century. Thus for the first of the four periods of the Chōḷa rule[6] the number of the activities of the *sabhā* was 114, for the II period it was 154 and for the III and IV periods respectively 39 and 21. So after reaching its peak stage about the reign of Rājarāja I (985-1014) the *sabhā* lost its hold rapidly. For the four periods the number for the *ūr* were respectively 52, 25, 19 and 57. Though during the middle phase the *ūr* was not so active it began to be so in the last phase. This is rather significant in view of the active part played by the Veḷḷāḷas in the religious field, particularly in the development of the Śaiva Siddhānta sect, in the later centuries. Many large monasteries came to be headed by non-Brahmans by then.

Another interesting information emerges from a consideration of the governmental activities with reference to *ūr*. For the four periods of the Chōla rule the number of such activities were 2, 6, 1 and 15 respectively and for the post-Chola period, extending upto 1350, it was 10. The number six for the second period is due to the active government of Rājarāja I. There is a definite incease in the number during the fourth period and thereafter. This was due to the frequent interference in the country-side by the rulers, particularly the feudal chiefs. This fact is symptomatic of some substantial change in the society, which deserves some separate study.

Sum-up :

As the field is vast, only some salient points have been touched upon. Basically the *ūr* (territory) was a convenient habitation site with land resources owned and managed by a handful of landholders who were the Veḷḷāḷa occupying the topmost rung in the social hierarchy of the day. These landholders were the *ūrār* (corporate body) who in a group of neighbouring villages within a territorial unit called *nāḍu* formed the body *nāṭṭār* which was influential in local government sphere. The *ūr* villages are found to become more and more prominent in the later half of the Chōḷa rule and at the same time they are found to have felt more and more of outside control from the government or feudal chiefs.

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2. *The Colas*, pp. 492-94.
3. Comprising the Chōḷa-maṇḍalam and Naḍuvilnāḍu, *i.e.*, the present districts of Thanjavur, Tiruchirapalli and South Arcot.
4. Y. Subbarayalu, *Political Geography of the Chola Country*, (Madras, Tamil Nadu State Department of Archaeology, 1973), p. 34.
5. The total 5,000 represents about a third of the total inscriptions recorded until now by the Epigraphists of Archaeological Survey of India and some allied Departments for the period under study.

6. Y. Subbarayalu, *op. cit.*, pp. 90-91.
7. *South Indian Inscriptions*, II, Nos. 4-5.
8. *Pulaiya*, *chakkiliya*, *oṭṭai-vanni*, etc.
9. These members are counted from the number of persons appearing as *ūrāy-iśainda ūr*, *i.e.*, 'the *ūr* gathered unanimously'.
10. *E.g.*, Teñāvūr-*kilān*, Tiruvārūr-*uḍaiyān*. A systematic study of names of persons in Choḷa inscriptions by Prof. N. Karashima and the present writer has yielded a number of interesting results for the social history of this period. See for a short report on this study, 'A Statistical Study of Personal Names in Tamil Inscriptions (Interim Report II)', *Computational Analyses of Asian and African Languages* (National Research Institute of Asian and African Languages and Cultures, Tokyo), No. 3 (1976), pp. 9-20. Also our *A Concordance of the Names in the Cōla Inscriptions* (Madurai, Sarvodaya Ilakkiya Pannai, 1978), pp. xli-lvi.
11. *SII.*, II, pp. 373, 517-35.
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13. *Ibid.*, VII, No. 96.
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17. Tiruvāmāttūr, South Arcot District *SII.*, III, No. 95; *ibid.*, VIII, No. 719, 740); Tiruneḍungaḷam, Tiruchirapalli district (*SII.*, XIII, 182); Sōmangalam, Chengalpat district, (*SII.*, VII, No. 966); Tiraimūr, Thanjavur district (*SII.*, XIII, 195, 270); Chevalai, South Arcot district (*Ep. Ind.*, VII, No. 19C); Tiruveyttānam, Thanjavur district (*SII.*, V, No. 593, 595, 596).
18. *SII.*, V, No. 1409, 11. 81-21. Also Nilakanta Sastri, *The Colas*, pp. 578-79.
19. *SII.*, VII, No. 809, 11. 11-12.
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21. *SII.*, I, Nos. 40-41; *ARSIE.*, 1923, Nos. 163, 165, 178 (texts published in *Adyar Library Bulletin*, VII, pp. 87-88, 188-89; IX, pp. 97-98).
22. Y. Subbarayalu, *Political Geography...*, pp. 45-46.
23. *Ibid.*, chapter V.
24. *SII.*, IV, No. 435; Ibid., VIII, Nos. 251, 591, 692.
25. All kinds of activities, such as land gift, land sale, land purchase, tax remission, *etc.* are taken into consideration.
26. I period from c. 850 to 985; II period from 986 to 1070; III period from 1071 to 1178; IV period from 1179 to 1279.

24

THE MADHYASTHA IN THE VILLAGE ADMINISTRATION OF MEDIEVAL TAMIL NADU

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The local administration under the medieval Chōḷas of Tamil Nadu was through primary assemblies, the *ūr* (literally village or town, but meaning assembly also) being the primary administrative body managing the local affairs. Likewise we have the *sabhā* invariably associated with a brahmin township *maṅgalam* or *chaturvēdimaṅgalam* and the *mahāsabhā*. Administration was carried out through several *vāriyams* or committees, *viz. Tōṭṭavāriyam*, *Kaḷanivāriyam*, Erivāriyam, Kuḍumbavāriyam, etc. The assembly itself was denoted by the terms *kuṟi*, *peruṅguṟi ūr*, *sabhā*, etc. The members were collectively called *ūrōm perumakkaḷ*, and *peruṅguṟimakkaḷ*. The *mahāsabhā* constituted, besides the several *vāriyams* or executive committees, the *bhaṭṭas* and the *viśishṭas*. The functioning and election of members to the *sabhā* and committees, incorporating the minutest details, are embodied in an inscription of Parāntaka I at Uttiramērūr.[1] Also a comprehensive idea of local administration of the times is found in Sastri's *Colas* under the chapter 'Local Government'.

For the effective functioning of the *sabhā* and the committees it is obvious that there should be some permanent employees to keep records, carry out the orders of the assembly, etc., in short, execute the direction of the assembly or the committee. From numerous inscriptions we come to know of two such officials—*Karaṇattān* or *Kaṇakkan* and *Madhystha* the latter sometimes literally translated into *Naḍuvirukkai*. While the functions of the former appear to be fairly settled as being those of an accountant (the meaning of the term itself is very much suggestive), those of the *Madhyastha*, in spite of its implied arbitratorship, is nebulous. Sastri is of the opinion that the *madhyastha* should not be equated with an arbitrator, since there is no inscriptional evidence whatsoever of the *madhyastha* having arbitrated between disputants.[2]

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But then if there was no cause for arbitration why should there be an office of a *madhyastha*? However, Sastri would have us believe that this term was "applied to village officers to emphasise their neutral position in all matters of rural politics." He further states "They attended the meetings of the assembly and assisted in the conduct of proceedings but took no part in the deliberations."[3]

But since the *Madhyastha* was an officer appointed by the assembly he must have been entrusted with certain duties. It is the purpose of this short paper to assess, to the extent possible, the role of the *madhyastha* in the village assemblies and administration.

Source and data

For this purpose the data has been culled mostly out of the *South Indian Inscriptions*, Volume XIII, edited by Sri G.V. Srinivasa Rao. The volume contains 352 Chōḷa inscriptions from various places. Besides the above a few more Chōḷa inscriptions have been consulted from other volumes of *South Indian Inscriptions* series. The dates of these inscriptions range in time from the first quarter of the tenth to the first quarter of the twelfth century A.D. King-wise these inscriptions are from the times of Parāntaka I to Kulōttuṅga I and involve more than one hundred village assemblies.

Of the 400 and odd inscriptions consulted only 57 epigraphs make references to *Madhyasthas* and the number of *sabhās* involved is only 22. From these 22 villages and 57 inscriptions we get to know of 48 names of the *Madhyasthas*, since more than one inscription mentions the same *madhyastha* or one epigraph contains the name of more than one such officer.

A critical study of these inscriptions reveals several interesting facts. It is seen that some bigger *sabhās* employed this officer for each *chēri* or ward.[4] In rare cases the two offices—*Karanattān* and *Madhyastha* were combined when that particular officer went by the designation *Karaṇattān-Madhyasthan*[5] or *Kaṇakkan-Madhyastha.*

Analysis of names :

An analysis of the names of this office-bearer is quite revealing. It is observed that their name endings warrant the inescapable conclusion that they belonged to a certain definite numerical group, to wit Āyirattirunūṟṟuvan (of 1200), Āyirattu toṇṇūṟṟuvan (of the 1090), Nūṟṟeṇman (of the 108), Munnūṟṟuvan (of the 300), Eḻunūṟṟu Aymbattu Aṟuvan (of the 756), Iraṇḍāyirattunūṟṟuvan (of the 2100), Eḻāyiravan (of the 7000); next come such suffixes as Brahmarāyan, Samjñāpriyan, Dharmapriyan, Maṅgalapriyan, Alaṅgārōttaman, Maṅgalōttaman. *Madhyasthas* had also suffixes like Rājēndrachōḷapriyan. A few end with *uḍaiyān* like Tirukalatti-uḍaiyān, Uttiramērūr-uḍaiyān, etc. Others had their names ending with *Peruṅgāvidi.* Some *madhyasthas* had prefixed their father's name also, as, for example, Nālāyiravan Magan Āyirattirunūṟṟuvan.

It would be an interesting speculation to see whether these appendages to the names do really mean anything? The appendages mentioning the numerical strength do show that they belonged to a compact and restricted numerical group. But the basis on which the groups were formed is not clear. For example, the name Nālāyiravan Magan Āyirattirunūrruvan indicates that the father belonged to one group while the son belonged to an entirely different group. Reverting to the main consideration we may perhaps be right in thinking that *Dharmapriyan* might indicate the person's staunch adherence to the tenets and stipulations of the *Dharma Śāstras*. *Brahmapriyan*, perhaps means a man in persuit of *Brahmajñāna* and *alaṅkāra priyan* possibly means one who is an expert in Alankāra. The name Nālāyiravan magan Ayirattirunūṟṟuvanāṇa Brahmaguṇa Karavidyāsthāna *Samjñā-priyan* might be a honorific adage for one who is an expert in the *Samjña* doctrine. These are mere speculations and do not have any supporting evidence.

Likewise it is also possibly to conjecture the religious or sectarian leaning of these persons. For example names like Śivadāsan, Nārāyaṇa Nakkan, Śivadāsa Śivamallan-āgiya Rudramaṅgalapriyan, Śivakuri nūṟṟeṇman, Eluvan Nakkan, etc. perhaps denote their Śaivite leanings. Vīranārāyaṇa Brahmapriyan, Vāmana Eḷāyiravan, Araṅgan Tirumāliruñjōlaiy-āna Eḻunūnuṟṟu-aimbattaṟuvan, etc., would in all probability represent Vishṇu worshippers. Amaṇa maṅgalapriyān-āna Muṇṇūṟuvvan and Dharmapriyan-āna Kalivishayan Taruṇēnduśēkharan were perhaps Jains. On the same line of reasoning, does Poṟṟikuri Kāḷi-Dēvaḍiyāna Iraṇḍāyirattunūṟṟuvan indicate a Śākta ?

To consider the functions of the *madhyasthas* : Almost in all the inscriptions this officer says that he wrote the deed. But at the same time he mentions also under whose directions or orders the deeds were drafted. To quote the actual terms found in the inscriptions : (1) *Sabhai paṇikka*,[6] (2) *Sabhai uḷḷirundu sabhai paṇikka*[7] (3) *Kuṟi uḷḷirundu*[8] (4) *Sabhai uḷḷirundu Perumakkaḷ Paṇikka*,[9] (5) *Kuraivara kūḍi irundu paṇippa paṇiyāl vyavastai śeidu*[10] (6) *Erivāriya perumakkaḷ paṇikka*,[11] (7) *Tiruvaḍiyum Dēvakanmigaḷum paṇikka*,[12] and on the orders of individuals as well.[13] The first obviously means he carried out the orders of the *Sabhai*. The second mentions the additional fact that he was present in the *sabhā* during the deliberations; the fifth mentions that the assembly met in full quorum and held extensive deliberations, the sixth refers to the orders of the Tank Committee while the seventh refers to the orders of the *Tiruvaḍi* and the temple authorities.

Now to cite a few instances from the inscriptions where this officer acted on the orders of more than one body or individuals :

An inscription dated in the 9th regnal year of Kōpparakēsari (Āditya II/ Uttama Chōḷa) authorizes the *Ūr vāriyam* of Kāmarasavalli-chaturvēdimaṅgalam to collect and utilise certain measures of paddy grown in a certain locality through temple servants for some specified services in the temple. The *sabhā* had been authorized in this regard by the representatives of the four wards (*chēri*) *viz.*, Nallūr Bhaṭṭan Nakkan Nāgan, Kaḍavūr Nārāyaṇan Tirukkuraṅguḍi Kramavittan and

Kranjikkampaṭṭi pol Nārāyaṇa Bhaṭṭa, to have this inscribed on stone.[14] Here we have a case where we can infer that the representatives of the four wards approached the *sabhā* for a settlement and the *sabhā*, considering their request, favourably directed the *Madhyasthas* involved to draft the deed.[15]

In another instance[16] the *Mahāsabhā* of Avaninārāyaṇa-Chaturvēdimaṅgalam received from an individual thirty *Kaḷañju* of gold for repairing a breach in the tank. But this amount was utilized for daily offerings in a Śiva temple, (the reason for the diversion of the funds is not given) and was to be implemented by the *Erivāriyam*, the original beneficiary. The transaction was discussed in the *mahāsabhā* in which three *madhyasthas* were present and they in all probability represented their respective *vāriyams* involved in the transaction. In this case the representative *madhyasthas* coordinate and vouchsafe for the proper utilization of the endowment originally intended for a certain purpose but later diverted for reasons unknown, but perhaps with the consent of the donor, for an altogether different purpose which also happens to be for the common good.

The third example[17] is the one where the *madhyastha* is directed to draft a sale deed of a disputed piece of aricultural land (the dispute being over the boundary between the *Mahāsabhā* and the *ūrār*) sold by the *Peruṅguṛi mahāsabhā* and the *ūrār* of Śrīkaṇṭha-chaturvēdimaṅgalam to one Vīranārāyaṇan Śembiyan Vedivelur of Śrīdavūr. Both the assemblies agreed to pay taxes on the land sold for a lumpsum consideration received, apart from the cost of the land. They also agreed to supply water for irrigation from the village tank. The purchaser endowed the land to the temple services. This is an instance of amicable settlement of a dispute between two adiministrative bodies where the *madhyastha* drafts the deed to the satisfaction of the disputants. No doubt the *madhyastha* must have played an important role in the amicable settlement of the dispute.

The fourth example[18] deals with the assignment of certain lands to an individual on certain conditions on the orders of Paḻuvēṭṭaraiyar Maravan Kandanār. The assignment was drafted by a *madhyastha* on the direction of the temple authorities, *padipādamulāttār*, *paṭṭudai Samayattār* and those who were entitled to receive shares from the temple. All these are involved because the land belonged to the temple. This is an instance where the assembly is not involved, since the order had been issued by a person of authority, perhaps the king's representative. Even then, those who are directly affected by the transaction have been consulted and their consent obtained.

Another inscription[19] of the time of Rājarāja I, dated in his 17th regnal year, records the deed by which the Śastā temple becomes entitled to raceive a certain measure of paddy. In this the *sabhā*, the headman and the *Śāttagaṇas* are involved and the beneficiary is the Śāstā temple which is represented by the *Śāttagaṇattar*. Therefore, it is clear that in such transactions, the donor, the donee and the *sabhā* have to be satisfied and their opinions have to be taken into consideration while drafting the deed.

From the above we may to a certain extent infer the role of this officer, the *madhyastha*, in the local administration of the villages during the medieval Chōḷa times which may be summed up as follows:

1. In a majority of cases the *madhyastha* drafts the deed for permanently inscribing on stone on the specific orders of the *sabhā* or *Mahāsabhā* as the case may be.
2. It would appear that the presence of this officer during the deliberations in the assembly is not necessarily obligatory unless so invited as evidenced by the specific references viz. *Sabhai uḷḷirundu perunguṛi uḷḷirudu*, etc. Following the above it is evident that he was asked to be present when difficult situations arose or when more than one party besides the *sabhā* was involved in the transaction, perhaps as a learned guide of the assembly in matters of *dharma* and justice or as an independant impartial observer.
3. He also drafts sale deeds when the *sabhā* and another party/individual or institution is involved in the transaction.
4. The presence of the *madhyastha* in business deliberations involving individuals, *vāriyams* or the *ūr* seem to have been obligatory. In these the *madhyastha* appears to have played an important role.
5. He was also to be present in the assembly when disputes between two administrative units/bodies arose and offer advise.
6. Hence it would not be wrong to infer that the office of the *Madhyastha*, besides being a sort of legal remembrancer/draftsman of the village and assembly, did involve a certain amount of arbitration as well.

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25

WEIGHTS AND MEASURES IN EARLY MEDIEVAL KARNATAKA

M.V. KRISHNAPPA*

Though weights and measures are essential part of a civilized society, unfortunately references to them are not prolific in the sources. Hence we have to depend upon the meagre information that we get of them in inscriptions and literature of the period. Though inscriptions of early medieval Karnataka mentions certain terms which by their contexts appears to be denoting weights and measures, their exact significance and value can not be determined. This is a major difficulty in understanding the weights and measures of the period. Occasionally some literary works also mention some of the terms representing weights and measures. With the help of such references an attempt has been made here to study the weights and measures of Karnataka of the early medieval times.

Of the measurements of land, which occurs very frequently in inscriptions are *Mattaru, Kambha, Vēḷi, Nivartana, Solige, Kuḷi* and *Maṇṇu*. The *mattaru* was the most popularly used measurement particularly for dry and wet land. Certain words are found as suffixes to *mattaru* and atleast some of them like *Kisukāḍ-mattar*,[1] *Puligeṛe-mattar*[2] can be identified as *mattaru* measurement used in *Kisukāḍ* and *Puligeṛe* provinces respectively. There is no unanimity among scholars regarding the correct value of a *mattaru*, though we can state that length X breadth + 1 was the *mattaru*.[3] Perhaps it varied from two thirds of an acre to nine acres.[4]

Kambha, Kamba or *Kamma* was another unit of measurement of dry and wet lands. According to an inscription one *mattaru* was equal to 900 *Kammas*.[5] This inscription mentions in total four *mattars* and 3100 *Kammas* which has been equated with seven *mattars* and 400 *Kammas*. This yields the relative value of *Kamma* and *mattar* mentioned above.

Nivartana is another unit generally mentioned in Sanskrit inscriptions. It may be taken as synonymous with *mattar* of Kannaḍa inscriptions, because the word *Nivartana* does not occur in Kannaḍa inscriptions.[6]

Solage or *Solige* is another unit generally used in the land measurements. It is surmised that this term gets its name because it consisted of steelrope or iron

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rod used for surveying, called *Salaki*.[7] This word is also used as a measurement for oil, paddy, rice, etc. An inscription of Rājamalla II tells that one *Solige* of Paddy was given as a grant to a *brāhmaṇa* at Kūḍalūr.[8]

Vēli, obviously a term borrowed from Tamil area was in use in Bangalore, Kolar and Mysore districts. The same thing is the case with the unit *Kuḷi*, also used in the above districts. An inscription of Nītimārga II records that a land gifted yielded 12 *kuḷi* of pepper and 90 *kuḷis* of oil seeds.[9] *Koḷaga* also was a popular unit. An inscription of Śivamāra II states that a land yielded one *Koḷaga*.[10] *Khaṇḍuga* as a measurement of paddy occurs frequently. Along with these measurements we get the qualification like *Hiriya* and *Kiriya*. They may be taken as bigger and smaller. This sort of bigger and smaller measures were in use till recently in the rural side. *In Pampabhārata* we get the word *baḷḷa* as a measure of paddy. (*Seṭṭiya baḷḷam kiridu*).[11]

Many rods which are used for measuring lands are seen in inscriptions. This leads us to believe that though there were some important measurements like *mattar*, *nivartana* etc. acceptable to one and all, local measurements were different. This becomes clear from an inscription of Kurugōḍu of A.D. 750 wherein the King had ordered that a rod of eighteen *gēṇus* (cubits) should be used in Kurugōḍu area.[12] A model rod of accepted length was kept in the temple and people perhaps made duplicates of them for their use. This becomes evident from an inscription on the wall of a temple which states that any person who does not follow this rod of fifty *gēṇus* will go to hell.[13]

The names of large number of such rods or canes are met with in the inscriptions of the period. *Padinārugēṇ Kōl*,[14] *Aivattāragaḷe*,[15] *Kogaḷigaḍimba*,[16] *Nagarēśvarada Kōl*,[17] *beddalugaḷe*[18] are some of the examples. Obviously these are measurements used locally and perhaps had no use outside the area of their mention.

As most of the things were measured in ancient Karnataka, we do not get frequent references to weights in the period. Rājāditya, the author of *Vyavahāragaṇita*, a work of a slightly later period, furnishes some details and the relative values of them.[19] It may be surmised that the same was the case during the period under reference too.

Accordingly the following is the table of weights :

1. *Bhāra* = 20 *Tola*
1. *Tola* = 5 *Bisage*
1. *Bisage* = 20 *Pala*
1. *Pala* = 4 *Karsha*
1. *Karsha* = 4 *Suvarṇa*

Unfortunately we are not in a position to know the state control over weights and measures though we can surmise that State exercised strict control over the weights and measures. There were instances of cheating by merchants by way of fraud in weights and measures is known through literature. Pampa states that merchants cheated throughs smaller measures.[20] Brahmaśiva, the author of *Samaya Parīkshe* also condemns the fraud of inferior weights and measures. He states that if a merchant used a longer rod for buying a land, the same should be used while selling it also.[21] There is an interesting epigraphical evidence also on this point. An epigraph of A.D.[22] 800 mentions that in a land deal, it was sold at the rate of six units while it was purchased at four units. On a complaint, the King cancelled the deal and arranged the deal afresh at the original price. Though solitary, this evidence shows that the King himself used to rectify such frauds. This proves our surmise that the State had control over weights and measures.

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26

RĀSHṬRAKŪṬA RULING FAMILIES OF ORISSA

SMT. SNIGDHA TRIPATHY*

Recent discoveries of a number of epigraphical records in Bolangir and Sambalpur districts of Orissa furnish us with some important historical informations particularly of the period of the Sōmavaṁśī rule in this part of the province. These epigraphical records introduce a line of rulers known to have belonged to the Rāshṭrakūṭa lineage. Though they differ considerably from each other on point of chronology, they seem to belong to a particular area falling within the kingdom of South-Kōsala of the Sōmavaṁśī kings, i.e., Bolangir-Sambalpur districts of Orissa.

Some epigraphical records of the 11th and 12th centuries show evidences of similar Rāshṭrakūṭa descendants ruling Pāñchāla country in the region around Badaun.[1] They are also known to have been associated with the imperial city of Kanauj from the time of imperial Rāshṭrakūṭas of the Deccan who had long and continuous conflicts with the northern powers, the Pālas and the Gurjara-pratihāras for the supremacy over this city. These descendants of the Rāshṭrakūṭas probably ruled around Kanauj till the early part of the 13th century, sometime also under the overlordship of the Gāhaḍavālas. But their Kannaḍa origin cannot be traced now after a lapse of several centuries.

The epigraphical records of the Rāshṭrakūṭas of Orissa clearly show evidences of their southern origin and that they were descendants of the imperial Rāshṭrakūṭas of the Deccan can be traced from other sources. A detailed account of the conquests and expeditions led by Rāshṭrakūṭa Gōvinda III (A.D.793-814), given in the Sanjan plates of his son and successor Amōghavarsha[2] would reveal that during his northern invasion against the Pālas and the Gūrjara-Pratihāras, he had invaded Kōsala, Kaliṅga and Ōḍraka together with other adjoining regions. Before his conquests, sometime during A.D. 754, Dantidurga also known as Dantivarman who is said to have been the first known ruler of the Rāshṭrakūṭa dynasty of the Deccan and the real founder of the greatness of his family, is also credited in the epigraphical records of his successors "to have faught on the banks of the Mahī, Mahāndī and Rēvā and won victories over Kāñchī, Kaliṅga, Kōsala, Śrīśaila, Mālava, Lāṭa and Ṭaṅka".[3] He is also known to have brought under his political influence the whole of Madhya Pradesh and Berar. There is ground to believe that in the course of these expeditions of the Rāshṭrakūṭas to northern India through Kaliṅga, Kōsala and Ōḍraka regions as mentioned in their inscriptions, some of the generals of the Rāshṭrakūṭa origin might have settled in the region around Bolangir-Sonepur tract of South-Kōsala like those of the Pāñchāla region stated above. The history of the imperial Rāshṭrakūṭa rulers show that the northern expedition of Gōvinda III was skillfully planned. The route of these expeditions to the north was *via* Bhopal and Jhansi and regions through south Kōsala. The scions of the family were made viceroys of different occupied regions of Gujarat, Mālava and the areas in Madhya Pradesh. Thus there is every reason to believe that some Rāshṭrakūṭa descendants settled down in these areas since the later part of about 8th or first part of the 9th century A.D.

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But we do not have any evidence so far discovered, to show any of their stronghold in the Kaliṅga region. Nor we have any evidence of their rule in the Bolangir-Sonepur tract of the ancient South Kōsala before the advent of the Sōmavaṁśī kings. It cannot thus be definitely concluded, at the present state of our knowledge whether these Rāshṭrakūṭa families were ruling independently or under some paramount power before the Sōmavaṁśī rule in this region. The Sonepur tract of the district of Bolangir seems to have been under the Bhaumakara kings of Orissa before the advent of the Sōmavaṁśīs and ruled by the Bhañjas who acknowledged the Supremacy of the Bhaumakaras. Their kingdom was known as Khiñjali-maṇḍala the capital of which was Dhṛitipura. The rulers of this family assumed the title of Ubhaya-Khiñjaly-ādhipati (lord of both the Khiñjalis):[4] The location of both the Khiñjalis has been determined by the scholars as both the northern and Southern banks of the river Mahānadī around Sonepur, Biramahārājpur in Bolangir district and Baud in the district of Baud-Khondmals. In fact, their epigraphical records mention the names of the river Mahānādī and its tributaries in and around these regions. But towards the later part of the 9th century A.D. Mahābhavagupta-Janamējaya I of the Sōmavaṁśa seems to have wrested a part of the Bhañja territory comprising the area around the present Sonepur and Birmahārājpur situated on the southern and the northern banks of the Mahānadī respectively. It seems probable that the Rāshṭrakūṭas who had settled in South Kōsala were instrumental in helping the Sōmavaṁśīs to drive away the Bhañjas to the Ganjam region and occupied the Sonepur-Birmahārājpur tract and established small principalities acknowledging the suzerainty of the Somavaṁśīs.

The earliest evidence so far known of their rule as feudatories under the Somavaṁśīs is a copper plate grant issued by one Mugdhagondaladēva who is stated in the inscription as the *Mahāmāṇḍalika* under Janamējaya.[5] This Janamējaya is evidently the Sōmavaṁśī Mahābhavagupta *alias* Janamējaya I as revealed by two charters issued by him in his third[6] and eighth[7] regnal years as well as the present inscription. The scribe named Saṁgrāma, son of Rāyaṇa Ōjhā engraved all these three charters. It is known from the present charter of Mugdhagondaladēva that he was the son of *Māṇḍalika* Śrī-Vālatuṅga and grandson of the *Māṇḍalika* Śrī-Khaḍgaśiva and an ornament of the Rāshṭrakūṭa family. The family of the donor is said to have hailed from Llātalaurapura and became the lords of Parakula-maṇḍala. He issued this charter from Sukara-kaṭaka, apparently his capital, in favour of a Brāhmaṇa named Bhuvanāga son of Nārāyaṇadāsa and grandson of Bhavanāga of Kauṇḍinya-gōtra. The gift vlliage is Kiraṅkēlā situated in Telātaṭṭa-*vishaya* (district). This *vishaya* is also found mentioned in the Patna plates of the Sōmavaṁśī Mahāśivagupta *alias* Yayāti I of his regnal year 24[8] and also another charter of his 28th year[9] and seems to have been so named after the river Tel, a tributary of the Mahānadī.[10] Probably this district which was formerly under the administrative control of Mugdhagondaladēva, a feudatory ruler of the Sōmavaṁśīs, came under the direct control of the central administration during the time of Yayāti I. Although the gift village Kiraṅkēlā could not be identified satisfactorily at the present state, the village Antaralā where the donee resided, can be identified with the present Antarḍā under the Tarbhā P.S. of Bolangir district contiguous to the Village Degaon, the findspot of the present grant. The *maṇḍala* or the principality over which the donor ruled, known as Parakula-maṇḍala, seems to have comprised the present Tarbhā P.S. and its adjoining areas and may also be identified with Telātaṭṭa-vishaya of the present grant as well as of the Sōmavaṁśī records.

The place name Llātalaurapura wherefrom the donor and his family are said to have migrated indicates his southern origin. This place has been variously spelt as Llātalōra, Lattalaura, Lattanūr, etc. in the Rāshṭrakūṭa records of the Deccan which was the traditional home claimed by a number of Rāshṭrakūṭā families and the Raṭṭa chieftains of Southern India. A Rāshṭrakūṭa feudatory under the Western Chāḷukya emperor Vikramāditya VI claimed himself to have belonged to the Mahārāshṭrakūṭa lineage and emigrated from Latalaura.[11] This place has been identified with Lātūr in Osmanabad district of Hyderabad in Andhra Pradesh. Though the donor of the charter in question assumed the religious title of *Paramamāhēśvara*, the royal seal attached to his copper plate grant bears the conventional Vaishṇavite symbol of *Garuḍa* with a snake which was also the dynastic emblem of the Rāshṭrakūṭas of the Deccan. The symbol is represented on the seal in its countersunk surface, the emblem of *Garuḍa* with outstretched wings and beak nose carved in low relief. It is in the running posture with its left hand extended to the front as if to catch a snake which is also depicted below. It may be pointed out here that this Vaishṇavite symbol has been differently depicted in their respective copper plate grants of the different Rāshṭrakūṭa rulers discovered in Orissa as it will be persently shown.

The first copper plate grant of this family was discovered at Banda village under Bargarh Tahsil of Sambalpur district and it has been edited by D.C. Sircar in the *Epigraphia Indica* Vol. XXX, pp. 136 ff. *Rāṇaka* Parachakraśalya, the donor of the grant was the son of Dhaṁsaka and grandson of *Rāṇaka* Chāmaravigraha who was an ornament of the Rāshṭrakūṭa lineage. He and his predecessors ruled as *Māṇḍalikas*. Though the name of the principality or the *Maṇḍala* ruled by them is not mentioned

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in the charter, it was issued from Vāgharakoṭṭa, apparently the name of a fort. It has been identified by the editor of the grant with the region Bargarh contiguous to the district of Bolangir. Inspite of the subordinate royal titles assumed by the donor and his predecessors the name of his overlord is not mentioned in the charter. The grant is dated, apparently in the regnal year of the donor as the year 56. But the editor of the grant has taken it to be the Chālukya-Vikrama era corresponding to A.D. 1131.[12] His view is based on the belief that these Rāshṭrakūṭas "entered Orissa in the train of the eastern expedition led by Chāḷukya Vikramāditya VI sometime before the death of his father in A.D. 1068"[13] But the charter of Mugdhagondaladēva mentioned above seems to belong to a much earlier period than that of Parachakraśalya which can be assigned to about the early part of the 10th century. It clearly disproves Sircar's suggestion. Moreover, there is no evidence to show that Vikramāditya VI ever invaded Dakshiṇa-Kōsala, the kingdom of the Sōmavaṁśīs. The palaeography of the charter resmbles that of the Mahada plates of the Telugu-Chōḍa king Sōmēśvara,[14] the Kelga plates of the Sōmavaṁśī Kumāra Somēśvara,[15] and the Baud plates of Salōṇabhañja,[16] etc. The royal seal attached to the charter is interesting to note. The plates are strung together on a ring to which is fixed a small figure of *Garuḍa*, instead of a royal seal of the usual type. The upper part of the *Garuḍa* is shown with folded palms and with a crown on the head as well as two outstretched wings on the back.This seal bears close resemblance to the seal of the Kharepāṭan plates of Raṭṭarāja of the Śaka year 930 (A.D. 1008).[17] *Rāṇaka* Parachakraśalya also assumed the religious title of *Paramamāhēśvara* inspite of the Vaishṇavite *Garuḍa* emblem in his charter., like that of Mugdhagondaladēva. It seems that the tradition of using Vaishṇavite symbol borrowed from the ancestors was continued for a long period. Some of the epithets for the donor mentioned in the inscription, such as, *Kanaka-ḍamaru-triyali-rav-ōtrāsit-ārāti-chakra*, *Rāshṭrakūṭ-āmala-kula-tilakaḥ*, *Llātalōra-vinirgata*, *śvēta-chhatra-vibhūshita*, *Garuḍa darpaṇa-dhvaja*, etc. would evidently reveal similarity with the epithets used by the Rāshṭrakūṭas of South India, as known from their inscriptions which mention *Pāli-dhvaja*, *Oka-kētu* and *Garuḍa-lāñchhana*. The musical instrument named *tirvalī* mentioned in the inscriptions of the Rāshṭrakūṭas of the Deccan also heralded them in public.

It seems Parachakraśalya ruled the area around the Bargarh region at a much later period than Mugdhagondaladēva, probably when the Telugu-Chōḍas with the help of the Chhindaka-Nāgas had succeeded in driving out the later Sōmavaṁśīs from the Sonepur-Bolangir tract to the coastal region of Orissa. This happened during the reign of Karṇadēva the last Sōmavaṁśī king to rule this region of South Kōsala during about A.D. 1100. The Rāshṭrakūṭa rulers who acknowledged the suzerainty of the Sōmavaṁśīs were also driven out from the same region which the Telugu-Chōḍas occupied from the Sōmavaṁśīs.

Another copper plate grant issued by one Jayārṇavadēva (II) son of Gaṅgārṇavadēva and grandson of Jayārṇavadēva I of the Mahārāshṭrakūṭa lineage was discovered a few years ago at Kamalpur, a village under Birmaharajpur P.S. in Bolangir district.[18] The palaeography of the charter is very much similar to that of the Banda plates of Parachakraśalya and the Kelga plates of Kumāra Sōmēśvara, mentioned above. The evidences furnished by this charter show that the donor *Rāṇaka* Jayārṇava (the name has been spelt as Jayārṇṇama and the name of his father as Gaṅgārṇṇama, *va* being pronounced as *ma* which is a characteristic feature of the Oriya language) was also a petty Māṇḍalika or chieftain of a small principality or Maṇḍala named Kōleḍā-maṇḍala like those of *Rāṇaka* Parachakraśalya and Mugdhagondaladēva. He and his predecessors have been designated as *Mahāmaṇḍaleśvara* and *Mahāmāṇḍalika*. The name of his overlord as revealed by this grant is the Sōmavaṁśī Karṇadēva who was then ruling from Yayāti-nagara. *Rāṇaka* Jayārṇava issued his charter from Kōlēḍā-pāṭa, evidently the headquarters of his kingdom of Kōlēḍā-maṇḍala, in the seventh year of his reign. It reveals that the donor belonged to the Mahā-Rāshṭrakūṭa (written as Mahārāshṭrakula) family, its genealogical list being known for the first time.[19] Besides the usual characteristics of the Rāshṭrakūṭa epigraphical records, the passages in the charter show influences of the inscriptions of the Bhañjas (Baud-Sonepur branch) who preceded these Rāshṭrakūṭa feudatories in this region as well as those of the Telugu-Chōḍa feudatory chiefs of the Chhindaka-Nāgas who occupied the Sonepur region by ousting the Sōmavaṁśīs. There are distinct similarities with the copper plate grant of Parachakraśalya in the passages like *ḍaka* (*kanaka*)—*ḍamaru-tṛ*i (*tri*) *vali* [*turya**] *rav-otrāsit-ārāti-chakra* and *śvéta-chhatra-vibhūshita*, etc. The donor seems to be a ruler in the region around Birmahārājpur on the northern bank of the river Mahānadī near Sonepur where the Telugu-Chōḍas and the Somavaṁśī Kumāra-Sōmēśvara ruled for sometime as it can be assumed from the reference to the donee of the present charter and the donees mentioned in the Sonepur charter of Kumāra Sōmēśvara[20] and the Kelga charter.[21] The donees of all these copper plate grants seem to have belonged to the same family, having the same Hārita-gōtra and Pañchārshēya-pravara and were residents of Kamalapura, evidently the findspot of the charter in question. The donees and their long genealogical lists furnished by all these charters have the *Kara* suffix in their names. Unfortunately, the royal seal attached to the plates is so much corroded that it is not possible to know the emblem used by this line of kings, though the donor is known from the text to have assumed the religious title of *Paramamāhēśvara* like the donors of the other two copper plate grants discussed above. This charter also disproves the earlier belief of scholars that during the time of Karṇadēva "the Sōmavaṁṣī kingdom was confined only to the coastal tract comprising the present districts of Puri, Cuttack and Balasore".[22] It is very much clear from the present charter that *Rāṇaka* Jayārṇava issued it with the permission of his overlord Karṇadēva who still retained certain principalities in the Sonepur-Bolangir region through these Rāshṭrakūṭa families although the capital of the Sōmavaṁśīs was shifted to Yayāti-nagara (identified with modern Jajpur, Cuttack district) in the coastal region.

It thus appears from the copper plate grants of the Rāshṭrakūṭa families of Orissa discussed above that they were all *Māṇḍalikas* ruling over different principalities under different Sōmavaṁśī rulers and acknowledged their suzerainty till the reign of the last king Karṇadēva of the dynasty and ultimately became extinct during about first half of the 12th century A.D. with the decline of the Sōmavaṁśī rule in Orissa.

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2. *Ep. Ind.*, XVIII, pp. 244 ff.
3. *Op. cit.*, IV, p. 1.
4. For the inscriptions of these Bhañjas, see, *Inscriptions of Orissa*, VI, pp. 51-124 (compiled by Smt. S. Tripathy).
5. A paper on this charter with the text was presented jointly by Smt. S. Tripathy and Sri B.K. Rath in the Six Annual Congress of the Epigraphical Society of India held at Ahmadabad in February 1980. The copper plate grant is now preserved in the Orissa State Museum, Bhubaneswar.
6. *Ep. Ind.*, XI, pp. 93-95 ff.
7. *Ibid.*, VIII, pp. 138-43 ff.
8. *JASB.*, I (1905), (new series), pp. 5-6 and 12-13 ff.
9. *Ibid.*, pp. 8-12 and 12-23 ff.
10. Another district called Oṅgātaṭa-vishaya, named after the river Oṅg, a tributary of the Tēl river is found mentioned in the Sōmavaṁśi inscription, cf. *Ep. Ind.*, Vol. III, pp. 340 ff.
11. *Ep. Ind.*, XXX, p. 138. The imperial Rāshṭrakūṭas of the Deccan and the Raṭṭas of Saundatti mention in their records the epithet of *Lātalōrapuravar-ādhīśvara*, cf. *IA.*, Vol. XII, pp. 158 ff.
12. *Ep. Ind.*, XXX, pp. 137 ff.
13. *HCIP.*, V, p. 222.
14. *Ep. Ind.*, XXVIII, pp. 283 ff.
15. *Ibid.*, pp. 321 ff.
16. *Ibid.*, XXVI, pp. 276 ff.
17. *Ibid.*, III, pp. 292 ff. and plate.
18. This charter has been recently edited by Dr. K.C. Panigrahi in the *Journal of Orissan History*, I, pp. i ff. But he has not attributed the donor of the grant to the Rāshṭrakuṭa family.
19. The grant like that of Parachakraśalya is full of spelling and grammatical mistakes and the language, though written in Sanskrit, is very often influenced by local Oriya dialect.
20. *Ep. Ind.*, XII, pp. 237 ff.; XXVIII, pp. 321 ff.
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22. K.C. Panigrahi, *Chronology of the Bhaumakaras and the Somavamsis of Orissa*, p. 38.

27

ANHILWAD PĀṬAN AND MĒRUTUṄGĀCHĀRYA

R.N. MEHTA*

Urban archaeology presents the interesting phenomenon of revealing significant facts about a town that explain many aspects of its activities. While studying the Urban Archaeology of Anhilwad Pāṭan, it was discovered that some of its monuments developed later than the period noted in literary works and threw useful light on the movements of Bhīmadēva Chaulukya when Mahmud Gazni came in this area and explained some aspects of the *Prabandhachintāmaṇi* of Mērutuṅgāchārya.

Anahilawāḍ Pāṭan began its career as a centre of administration from the day that Vanarāja built his palace. This important centre began attracting people and started growing. According to Mērutuṅgāchārya, the city was fortified by Bhūyad, the successor of Vanarājā.

Archaeology

This fort is pointed out as the Rājagaḍhī. An exploration around Pāṭan significantly shows two forts. One of them is the Rājgaḍhī which is a circular mound with evidences of fort-line that is seen in a number of cuttings. The other is the present day fort. The earlier fort or Rājagaḍhī which is on the South of Sahasraliṅga tank is possibly indicated as the one noted by Mērutuṅgāchārya.

This fort was excavated in 1979 jointly by the Department of Archaeology and Ancient History of M.S. University of Baroda and Western Circle, Archaeological Survey of India.

The stratigraphy of the fortifications revealed that it was built over older structures and therefore it was relatively late. Its construction revealed that in the foundation sand-stone sculptures were used. These sculptures evidently belonged to the Chaulukya period. The bricks used in the wall were also a mixture of different periods. The method of construction and stratigraphy, therefore, indicated that the oldest fort at Pāṭan does not go to a period earlier than the 14th century A.D.

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Problems

These features posed a number of problems about the text of Prabandha Chintāmaṇi and the nature of this capital of Gujarat. One of the problem concerns the text of Prabandha Chintāmaṇi, and questions the reference of fort in the edited text.

The construction of the fort clearly revealed the inconoclastic hand of the 14th century rulers, and therefore the fort cannot be ascribed to the period as noted in the text. This feature would indicate the ignorance of the situation on the part of the author or the editor or it might indicate interpolation.

Solution

An examination of the critical apparatus indicates that the edition is not brought out from the author's own manuscript but the manuscripts and printed editions of the later period are used. The editor Muni Shri Jinavijayaji has only edited the work. The earliest available manuscript belongs to Samvat 1509=A.D. 1453. This chronology of the manuscript evidently suggests that when it was drafted the fort at Pāṭan might have been more than a century and quarter old. It is therefore very likely that the copyist might have introduced the notion as an interpolation.

The interpolation was carried forward by the editor by following the canons of criticism. Thus the editor also had done his work effectively. As the Rājagaḍhī is the older fort at Pāṭan as per local tradition, the whole interpretation was considered to be valid and was accepted as such, till the site was archaeologically examined.

New insight

Now archaeological research indicates that the fort is a construction of the 14th century and one can explain that Anahilawāḍ Pāṭan was not fortified. This situation will pose another problem about the open capitals of kingdoms. Fortunately some evidence in this direction is also available from contemporary Chandrāvatī and Arthuṇa. At both these capitals of Parmāras there was no fort and therefore one can visualise that Anahilawāḍ Pāṭan like Chandrāvatī had no fort. Similarly Agra also was an open city with the fort around the Palace complex only.

This fact helps in the analysis of the behaviour of Bhīmadēva whom Mahmud of Gazni attacked in Gujarat. Bhimadēva was a powerful ruler and had fought several battles. But when Mahmud of Gazni came all of a sudden on the outskirt of his open capital, for security and defence he had to leave his town and continue his plans of resistance.

From the perusal of the records of the period of Mahmud of Gazni it is seen that he met with stiff resistance at Mōḍhēra which lies at about 25 km south of Pāṭan. Here there was a fort and hence it was easy to put up the resistance. Probably Mahmud did not pursue the battle to reduce the place but keeping some army to fight have advanced towards Sōmnāth.

It may be noted that he preferred a more westward route through the Rann of Cutch to avoid further resistance in this area on his return journey. One reads about Mahmuds' successful raids in India, but the archaeological work at Pāṭan indicates that there were many open towns. It is possibly this feature of Indian cities that might account for his success, on one side, and very temporary effect on Indian mind on the other. This becomes clear when one realises that his chroniclers have written about his Indian expeditions, while their meagre notice is taken by the Indian side.

The long period of peace and non-aggression from other countries and powerful rulers also might be responsible for many open towns in India. Further research in Urban archaeology is needed to probe into these interesting problems of the first half of the present millenium.

28

THE ECONOMIC CONDITION OF MEDIEVAL KARNATAKA AS REFLECTED IN THE TRAVEL ACCOUNTS OF CAESAR FREDERIC 1563-1581

H.S. Ramanna*

Marco-Polo, the Prince among medieval European Travellers, visited Karnataka around A.D. 1265 and exactly after three centuries in A.D. 1565, another Venetian traveller, by name Caesar Frederic, about whom we are concerned at present visited the same parts of Karnataka. Marco-Polo's visit took place a few decades prior to the foundation of the Empire of Vijayanagar but Caesar Frederic's arrival in 1565 coincided with the fall of the empire of Vijayanagar. His travel accounts is a sad commentary on the ruined splendour of the city of Vijayanagar, after the battle of Rakkasi Tangadi in A.D. 1565. Marco-Polo's travels is widely known among modern scholars but relatively very little is known about Caesar Frederic's travels. Excepting Father Heras, no other modern historian has made any serious attempt to make a comprehensive and critical study of Caesar Frederic's travel accounts by applying modern scientific standards of historical criticism. But one important point emerges from the study of these foreign writings including that of Caesar Frederic, that political disturbances and changes in royal dynasties were no obstacles to cultural growth and economic development. Post-Talikota period of Karnataka was not fundamentally different from its history before A.D. 1565 and parallels in Pre-Talikota history could easily be found to the happenings in the period following the battle of Talikota. The desertion of the city of Vijayanagar and the consequent abandonment of the seat of Government did not hamper the growth of trade and commerce in Karnataka, for more than half a century after the historic battle, the imperial authority was, a living and potent force in South Indian Politics. The members of the Āravīḍu dynasty continued to render significant service in preserving the political and cultural integrity of the Karnataka. Caesar Frederic, the Venetian merchant, who starting in 1563, travelled by way of Bosra and Ormuz to Goa, visited Gujarat, Vijayanagar and most of the Portuguese settlements on the Coast of India and then proceeded to Pegu, Malacca, returning to Venice in A.D. 1581. His travels was published in A.D. 1587 under the title "Eighteen years of Indian Observation (A.D. 1563-1581) and an English version was printed in Purchas, his Pilgrims Vol. X, pp. 90 to 120. The present article is based on this translation.

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The travels of Caesar Frederic contain some useful and authentic materials on the political, social and economic conditions of Karnataka in the later half of 16th century. Apart from major political occurrences of the period, his writings furnish valuable clues on socio-economic institutions of Medieval Karnataka like matrimony,polyandry, feudalism, caste, etc., as well as many typical customs, manners, folk ways and folk beliefs which were in vogue in Karnataka in this period. His travels has also become a commercial prospectus of Karnataka in the 16th century. His account of agriculture, industry, trade and commerce get ample corroboration from the writings of the earlier travellers and also from contemporary fellow travellers. In his power of observation, in his keen insight in the grasp of contemporary political occurrences and in the delineation of social and economic ideas, Caesar Frederic excels all his fellow travellers and it is no exaggeration if we may call him as the jewel among Medieval foreign travellers. His travel diary constitutes a unique document on the social and cultural history of Karnataka in the closing decades of 16th century.

Attention is focused, in this short paper on the delineation of some important facts relating to the economic condition of Karnataka during the period of his visit. It may be studied under the following heads : (1) Articles of Agricultural production; (2) Industry; (3) Indian goods in foreign markets; (4) trade centres; (5) shipping; (6) navigation; (7) currency, weights and measures.

Regarding agriculture, Caesar Frederic joins other writers in describing the fertility, the major crops that were grown, and the agricultural operations that were in practice in many parts of Karnataka. The Canara coast was very fruitful and contained many farm steads. Much rice was grown here and was exported to Malbar and to Ormuz. He says that the region round Baṅkāpur was very rich in seed plots and cattle breeding forms. Our traveller describes the route from Bhatkal to Vijayanagar via Karwar and Baṅkāpur as well cultivated, very fertile and provided with quantities of cattle such as cow, buffaloes and sheep. Among other articles of agricultural production, Caesar Frederic mentions that the coastal region is rich with the cultivation of pepper, cloves, cardamon and so on. They were produced, both for consumption within and export to foreign countries. Besides these, there were produced in the country many kinds of garden crops, consisting of vegetables and fruits. Referring to Vijayanagar, Caesar Frederic observes that there were plantations of mangoes, jack-fruit trees, tamarinds, and other very large trees behinds the cities, towns and villages and they formed the resting places for merchants to halt with their merchandise. There are also lengthy passages in our traveller's accounts on coconut gardens and the use of betel and the nut all over Karnataka. The cultivation of the above mentioned food and commercial crops was facilitated through the construction of tanks, acqueducts, channels and so on.

Caesar Frederic has noticed the existence of these tanks and channels in and around the city of Vijayanagar and also in the coastal regions.

The writings of Caesar Frederic throw welcome light on several aspects of the industry, trade and commerce that flourished in Karnataka towards the close of 16th century. The main items of industry, as gleaned from these writings, comprised of :(a) agricultural manufacture (b) mines metallurgy (c) handicrafts and (d) textiles. The latter was in a flourishing condition. Raw-silk was woven in many parts of the country. Very fine cloth was made near Goa. Caesar Frederic emphasises the self sufficiency of the people in their requirements. They imported horses for war and luxuries for the court. Our traveller mentions that there were two or three rocks which yielded many diamods. False diamonds and rubies were also fabricated and there were good imitations of the true ones. Caesar Frederic also notes the high degree of advancement that Karnataka achieved in metal industry. In Vijayanagara City, both wrought and unwrought metals, copper and quick silver were found. Loads of iron were exported from Bhaṭkal. Metal work consisted in making : (1) Jewellery (2) weapons of warfare and (3) household article of minor industrial nature, the most important seem to have been the production of scent. The people had a love for perfumes and flowers. Rose works, camphor and scented materials were available in Vijayanagar city. The writings of Caesar Frederic emphasise the fact that the foreign trade was passing from the hands of Mussalmans into that of the Portuguese. The articles of export were cloth, rice, iron, sugar and spices. The Portuguese bought cloth from Vijayanagara either at Ankōla or Honawar. Rice was exported from Basrūr, Bārakūr and Mangalore to Malabar, Maldives, Ormuz and Aden. Powdered sugar was exported to Ormuz from Bhaṭkal. Ships from Mecca came to Bhaṭkal for spices. The main items of imports included horses, elephants, pearls, copper, coral, China silk and velvet. Elephants were imported from Ceylon. Pearls came from Ormuz. China supplied silk through the Portuguese. Velvets came from Mecca.

Bullock-carts, pack animals and porters were the usual means of communication in the period.

Caesar Frederic mentions the existence of ports in the coastal areas and towns and cities in the interior. Goa was a flourishing trade centre in the period. Honawar, Bhaṭkal, Mangalore were other major trade centres of Karnataka in this period. The other trading centres—towns were Ankōla, Baindūru, Bārakūru, Kumbla, etc. In the central region, Caesar Frederic mentions Adavani, Ānēgundi, Vijayanagara, Penukonda, Srirangapatna, Dwarasamudra and so on. These cities were connected with well constructed roads. The city of Vijayanagara was connected with roads from all over South India. One road ran from Vijayanagara to Goa throngh Bankapur. Another road seems to have run from Bankapur to Bhaṭkal via Honawar. There seems to have been a road from Vijayanagara to Mailapur passing through Panukoṇḍa, Chandragiri, Tirupati and Pulicāṭ. The travels of Caesar Frederic contain some interesting information of coinage and currency system that was in vogue in Karnataka in the period. The people had a gold standard with a gold currency. Caesar Frederic mentions that Pardas was current throughout the country. It is equivalent to *Pratāpa*, a standard gold coin that was in currency in Vijayanagar empire at this period and *fanam* was another gold coin. It is the corrupt form of *Hana*, 1/20 of a *varāha*. *Tar* was a silver currency. It is 1/60 of *varōha*. Caesar Frederic also adds that there was a lot of fluctuation in coinage and every part of region had its own coinage. He also describes the existence of weight and measures in Karnataka. He also notes that they differed from one part of the country to the other part. At the end of his travels, he mentions the system of payment of wages to workmen and labourers. He says that the labourers were once paid every night when they left for their houses after finishing the day's labour. He also mentions that the prices of commodities were low and there were plenty of grains and gold in the country. On the general standard of life of the people, Caesar Frederic rightly points out the disparity that existed between the upper class and the middle class in the society.

This brief study of the trevels of Caesar Frederic, completed in A.D. 1587, helps us believe that Karnataka registered a phenomenal progress in agriculture, industry, trade and commerce. It was a land of plenty in medieval times. There was no famine and pestillence was rare. Gold and silver were not articles of luxuries but common commodities. Though the country was thickly pupulated, there was no inflation. A critical study of these travellers is bound to enlighten us on many more interesting aspects of social and ecocnomic history of Karnataka in the medieval period.

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29

BUDDHA'S BIRTH SCENES IN INDIAN SCULPTURE

RATAN PARIMOO*

Buddha's birth as Siddhārtha is depicted as a dream of Māyādēvī at Barhut in a medallion in which she is reclining on a cot while a large sized elephant is hovering above. (Pl. XXVIII). The scene is inscribed on the stone as *Bhagvato Ukranti*[1] (Sanskrit : *Garbhavakranti*). It is significant that in the written descriptions Buddha as elephant enters his mother's womb where as in the relief the sleeping woman and elephant hovering above her stand for the dream of the conception.[2] Since actual birth is not shown at Barhut and the label implies 'descent', therefore, this Barhut relief may stand for both conception as well as birth or could it be that the representation of birth had not yet been fixed, because even at Sāñchi, birth has not been depicted in the way it was in later centuries. The labels which invariably accompany the reliefs at Barhut have been an important phenomenon which has enabled the identification of the reliefs, probably even before the Jātaka or other texts became known.[3] Thus, these Barhut labels have given rise to the whole area of scholarship of identification of subject matter in Indian sculpture with the help and study of the textual sources, both cannonical and mythological.

At Sāñchi in the earlier *stūpa* occur protrayals of solitary elephants holding lotus stalks by their trunk, which can also be identified as young Siddhārtha, since some texts describe him as carrying lotus in his trunk as he appeared to Māyādēvī.[4] The motif travelled to *Gāndhāra* region and a number of reliefs exist showing a reclining female on a cot and an elephant above her. Compared with the Barhut relief here the elephant is smaller in size encircled with a halo-like disc around him and his whole position is so inclined that his trunk touches the right hip of his mother.[5] (Pl. XXIX). Here the *Gāndhāra* sculptor is more truthful to the story since in Barhut the mother is sleeping on her right and thus the elephant is assumed to stage to the entry on her left side. Both artists have their own ways of showing the elephant floating in air. However, the *Gāndhāra* artist portrays a single moment of time and "one point" perspective view of the cot and the sleeping female. The Barhut artist, makes the space rise vertically in three sections, namely the backview of maids seated in the fore-ground attending to the would be mother, the top view of the cot on which she is reclining occupying middle space and at the third level above, the crouching posture of the gliding elephant.

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The elephant as the object of dream together with the reclining female figure is again shown at Amarāvatī with this difference that the elephant is engraved in outline with hardly any relief modulations and relegated to the boardered frame.[6] The posture of the sleeping woman (or mother) is much more conspicuous with several flexions in the body as is one of the features of the Amarāvatī style (Pl. XXX). The composition is also more crowded. Another relief next to it shows an elephant contained in a palanquin being carried in a procession. This is to be understood as Buddha descending from the Tusita heaven, a step before he reveals himself to Māyadēvī. Elephant, as Buddha to be, is represented in several reliefs in this manner from the Kṛishṇa valley monuments.

Strangely the elephant is not present in the famous British Museum Amrāvatī slab which combines four continuons moments of the birth story in four compartments beginning with the dream or conception on the right, which are ingeniously divided by railings and uprights.[7] Only the motif of the reclining female figure has been used for the conception, who is being watched over by the four guardian gods. (Pl. XXXI). The posture of the woman is similar to the one in the previous relief with the conspicuous right hip rising into an undulating contour. In the next compartment is depicted the King's court where the queen is again present and the priests have been called to interpret the dream, who all make '*vitarka*' *mudrā* gestures. (The character of the queen is present in all the four scenes). The space is delineated, in contrast with Barhut reliefs, through a single view point for each frame using the devise of letting the foreground figures overlap the middle ground figures, who in turn overlap the figures behind them and who are conceived successively in back view, side view, three quarter view and frontal view. The relief is now carved deeper further contributing to the illusion of space. The relief is a remarkable example of continuous narration in Indian art at that early stage which quality was reasserted by Indian artists during the late 16th century and early 17th century under the Mughal as well as Rajput rulers.

The third section shows the birth which will be discussed presently. But I wish to draw attention with regard to the fourth and the last scene : the presentation of the newly born Siddhārtha to the *yaksha* or tree spirit. I have not come across its mention in *Nidanakatha* or in *Buddhacharita*. *Lalitavistara*, a much later text, mentions carrying of the boy Siddhārtha towards the temple in a grand procession.[8] The actual relief however not only indicates the tree and *yaksha* worship, but also its disappearance subsequently when *Lalitavistara* came to be written. Evoking the presence of an invisible person is so remarkably achieved in this relief in the way the mother carries the child as if she is holding something that has weight as well as is tender. and the way the tree-spirit or *yaksha Śākyavardhana* bends forward and folds his hands towards the invisible baby *Bōdhisattva*.

In Nāgārjunakoṇḍa subsequently another sculptor repeated the same scence with more complexity (Pl. XXXII). He shows yaksha bowing out of his own shrine in *añjalimudrā*, instead of emerging out of his tree, the moment the infant Siddhārtha is brought near him by his mother in her lap. She is attended by three other maids, two of them waving *chāmara* and a third has crouched herself at the feet of the *yaksha*. Compared to the other relief it is this artist's device to indicate not only yaksha's holiness but also to establish the necessary contrast in the situation. In the second section of the relief the saga *Ashita*, bearing a head gear of twisted hair knots, has carried the infant Siddhārtha in his lap, in the same manner as Māyādēvī carried him, again represented by a horizontal piece of cloth on which are carved the '*Buddha pāda*'. This section has another remarkable quality in the way the sculptor has delineated the gazes of each person, who are all looking in the direction of the '*Buddha pāda*', dramatising the moment the sage prophesized the infant's future, who according to him was destined to become a powerful *chakravartin* or choose the path of a *pravrāja*.[9]

Returning back to the Amarāvatī relief, what is significant is how the *śālabhañjika* motif is adapted in the depiction of the birth of Buddha event. While *śālabhañjikā* is depicted in Barhut as yakshī, the *śālabhañjikā* is adapted in Sāñchi as bracket figure. Both belong to the centuries before Christ. Perhaps for the first time at Amarāvatī the sculptor thought of using the *śālabhañjikā* motif for birth of Buddha, connecting this fortility symbol, which is a universal symbol, to a particular event, as in the British Museum slab, which may be dated in second century after Christ. Yet it also must be observed that Māyadēvī in *śālabhañjikā* stance, further turns and expands its meaning into an even greater phenomenal symbol *i.e.* Buddha's birth. The kind of *śālabhañjikā* that must have served as the prototype is not the kind in which Barhut *yakshis* were posed as, for example, the *Chandra Yakshī* but rather the voluptuous type, the closest parallel of which is found in Mathurā. As Stella Kramrisch has so pertinently expressed that in the *śālabhañjikā* motif the vegetative and the feminine coalese so organically as to transmit the creative generative energy from one to the other.[10]

The texts describe that *Bōdhisattva* does not come into this world in the way human beings are normally born but that his mother was ordained to give birth to him while standing. That is the reason she expressed the desire to move to the Lumbini grove. Mahāvastu describes "She (Māyādēvī) coming to it in play, leant with her arm on a branch of the wavy-leafed figtree, and playfully stretched herself at the moment of giving birth to the Glorious One."[11]

Such descriptions (I would rather say information) may have been hit upon by the artists to establish relationship between Māyādēvī and the *śālabhañjikā*. That until Aśvaghōsha (during the first century A.D.) Buddha's birth was considered to have taken place in the usual human manner as his mother laid on the cot, would suggest that the abovementioned biographical accounts cannot be earlier that Aśvaghosha's *Buddhacharita* and thus not to be taken as sources which were followed by the artists.

Therefore two questions arise. Because of the absence of clear association of *śālabhañjikā* at Sāñchi with the Birth of Buddha, is it justified to say that the female figure on lotus but without the presence of elephants represents Māyādēvī as suggested by Foucher.[12] One such relief is found on the balustrade of Sāñchi Stūpa No. II. The nude woman in triflexion standing in a pond on a lotus, which is considered to be the symbol of life, would together seem as appropriate mother archetype. (Pl. XXXIII). That it cannot be the goddess as is the case with many other female figures (not often nude) who are being lustrated by elephants while standing on lotus platforms. These images have been convincingly proven to be the iconic forms of Gajalakshmī who was equally accepted in Buddhist fold simultaneously as it was in Brāhmaṇism as well as Jainism. *Abhishēka* or lustration of gods is a characteristic Indian ritual of worship whereas Foucher took it to be specifically Budhhist and therefore as a literal translation of the textual description of the miraculous appearance of the jets of water to wash Māyādēvī. On the relief on the top lintel of the gate at Sāñchi is a pond filled with lush vegetation of lotuses and large leaves, a true representation of bountiful life serving as a befitting background for the standing Lakshmī (Pl. XXXIV).

Obviously then the nude female standing on lotus was replaced by the *śālabhañjikā* configuration at Amarāvatī to represent Māyādēvī. But the next interesting question arises because of the appearance of the *śalabhanjikā* motif also at *Gāndhāra* for the portrayal of Gautama's birth.[13] (Pl. XXXV). Generally, *Gāndhāra* sculptures have been taken to be earlier than what they might be. But both Amarāvatī and Gāndhāra representations may be contemporary innovations of artists adopting the *śālabhañjikā* for Buddha's birth. However, the Amarāvatī *śālabhañjikā* is more graceful and naturalistic, the *tribhaṅga* so effortless and almost amounting to the dance stance, in the manner the hip is thrusted towards the right. This exaggeration may also have a reference to the fact that Buddha was born by this side. The *Gāndhāra* Māyādēvī, on the other hand is crude, clothed in heavy garment and almost graceless, pointing to the essentially electric nature of *Gāndhāra* sculpture, which stands no comparison to the mastery over the body flexions as revealed by the Amarāvatī sculptors.

However, the actual presence of the infant near the right hip or emerging out of it, may be a *Gāndhāra* invention which influenced the Sārnāth sculptors during the 5th century. The actual introduction of the child is dependent upon the phenomenon of the evolution of the Buddha image in human form. The motif of the child is not found even in the Nāgārjunakoṇḍa relief (which has been apparently executed subsequently to the one from Amarāvatī).[14] At Nāgārjunakoṇḍa the composition is in reverse (Pl. XXXVI). Māyadēvī stands on the left hand side of the composition in the reverse *tribhaṅga i.e.* her left hip is thrusted out. The presence of the *Bōdhisattva* is evoked by showing a female attendant folding her hands and at that point the royal umbrella and two fly whisks are held aloft. The baby is received by four dēvas (or guardian gods) on a piece of cloth on which are seven tiny foot marks indicating the seven steps of the *Bōdhisattva*. Here the four dēvas are in one row and the roll of cloth makes an emphatic horizontal, by comparison to Amarāvatī relief where the four dēvas are placed in a circular group, one figure is portrayed in a difficult back view, creating the suggestion of movement. The female attendant with folded hands is a new element in the Nāgārjunakoṇḍa relief, together with the waterpot at the bottom, which suggests the bathing of the child. In contrast, the *Gāndhāra* composition does not have the lively flowing design of the Amarāvatī and Nāgārjunakoṇḍa reliefs, but the *Gāndhāra* artist presents a matter of face portrayal of Indra receiving the child in his lap from the centrally placed Māyādēvī who is also fully clothed. The four attendant gods are difficult to distinguish. Neither the seven foot-steps nor the bath of the child are represented in this frieze-like relief, although the bath is represented in some other reliefs.

There is paucity of depictions of scenes from Buddha's life during Kushāṇa and early Gupta periods in north India in general and Mathurā in particular. In this context a rare delineation of Buddha's birth theme from Mathurā of the Kushāṇa period is contained in a horizontal frieze, in which are depicted five major episodes of Buddha's earthly journey from his birth to his achieving *parinirvāṇa.* The birth of Buddha is carved in two sections. In the upper tier, the frequent motif of *śālabhañjikā* is adopted while a female attendant and Indra are placed on either side of the tri-flexioned figure of Māyādevī. It is very likely that Mathurā artists may have also been among the earliest to introduce the tree-nymph motif for narrative purpose but the presence of Indra is probably an adaptation from *Gāndhāra.* It is through such Mathurā reliefs that the Sārnāth sculptors may have got acquainted with Indra's association with the Buddha's birth episode. While the infant Siddhārtha is not shown emerging from Māyādēvī's hip, he is shown already standing in the lower section of the relief, being illustrated by two *nāgarājas.*

Another significant relief is from Sārnāth dating from fifth century, in which the dream, birth and rising on lotus are telescoped together in a continuous narrative.[15] Equally notable is the borrowing of the motif of child protruding out from the right hip of Māyādēvī and received by *Indra* as in *Gāndhāra* reliefs who, however, is not given the usual cylinderical head-gear. This is the only Sārnāth relief in which these events are combined in a lucid composition, relating the horizontally reclining Māyādevī with the vertically standing Māyādēvī. (Pl. XXXVIII). The third conspicuous point in the relief is the cute elephant cub floating downwards from the top. Māyādē vī, by comparison to the sensually posed female nudes of Amarāvatī with exaggerated hips is now a bashful artistocratic lady with her legs covered by a garment. The tree of the *śālabhañjika* is only rarely suggested, A central position is given to the child-figure of *Bōdhisattva* who stands on a lotus which, according to the description in the texts, grew out of the earth at the time of his nascence.[16] The two attendants having *nāga* hoods are assumed to be *Nanda* and *Upananda.* The four male figures standing in two pairs with folded hands may represent the four guardian figure. Eventually the birth of Buddha event is reduced to just the *śālabhañjikā* with or without the infant, which means that all narrative is removed contrary to the previous *Gāndhāra*, Amarāvatī and Sārnāth representations.

Probably the only bronze image of Birth of Buddha as an independent scence was made during the early Pala period in Bihar. (Pl. XXXIX). Here all the three personages of the event are present as Indra in a *samabhaṅga* position receives the infant. Siddhārtha is issuing in standing position from the right hip Māyādēvī as she relaxes her body in *tribhaṅga*, holding by her right arm the branches of a tree, attached to the arch-like *prabhāvaḷi* which frames the entire ensemble. The infant Buddha held high in the centre serves as the pivot of the composition. A miniature form of this configuration of Māyādēvī can be found in several stelae of the Pāla period. It is also significant to note the jewellery on the person of Pāla Māyādēvī in contrast to the almost complete absence of personal embellishments in the Gupta period Māyādēvī.

A remarkable Birth of Buddha scene has also come from Nepal from 8th-9th century carved on a stone slab.[17] Here the conspicuous emphasis is on the feminine grace since the infant has been separated from her mother's hip. (Pl. XL). Māyādēvī's physiognomy is very characteristic, she has slender waiste and shoulders as the langerously raises both her arms to hold the leaning branch of the tree. But her hip is seductively thrust right ward as it slopes down. No heavenly personage receives the infant who is already standing on the ground on a lotus pedestal surrounded by *prabhāvaḷi*, two *gāndharvas* hovering in the sky are showering water from two pitchers to give the infant Buddha his first bath. This half of the composition has been carved in very low relief as against the almost three dimensional rendering of the standing Māyādēvī.

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SĀTAVĀHANA TERRACOTTAS FROM PAITHAN

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Terracotta figures found in different parts of India represent human beings, animals, acquatic creatures and objects, of toys. They, broadly speaking, belong to two categories, *viz.* sacred or religious and profane or secular. The three pieces of terracottas presented here, mother-and-child, crocodile and Aśvamēdha seal, belong to the religious group, since all of them have some spiritual significance. The findspot of these pieces is Paiṭhan, the Sātavāhana headquarters, and they are now in the collection of Shri Balasahib Patil of Paiṭhan.

The terracotta art of the Sātavāhanas flourished in the vast empire at a number of important centres such as Kolhapur, Nēvāsa, Paiṭhan and Ter in Maharashatra; Amarāvatī, Dharaṇikōṭa and Kondapur in Andhra Pradesh; and Banavāsi and Sannatti in Karnataka. One of the characteristic features that distinguishes the Sātavāhana terracottas from those of other centres of this art is that the former one is produced in double-moulds, one mould for the front and the other for the back, a technique adopted from the Romans in the early centuries of the Christian era.[1] As a result the figure is in the round and has a hollow interior, whereas the latter, *i.e.* of the other centres, were hand-made and not hollow. Another peculiarity of the Sātavāhana terracottas is that they are mostly made of kaolin on account of the dearth or absence of alluvial clay which is easily found in the Indo-Gangetic plain. Kaolin has better plasticity and durability than clay. As a result of this new technique and raw material the Sātavāhana terracottas of men, women and children, "are characterised by bold and vigorous physiognomy and extremely sensitive modelling. They are noted for their dynamic vitality and plastic simplicity of form".[2] Some of the Sātavāhana terracottas are also made of clay. Of the three pieces presented here the mother-and-child figure is made of Kaolin and the other two of clay.

1. *Mother-and-Child* :

The figure is modelled in a manner posing before a camera. The hairdo is so well executed that the frontal view gives an appearance of bicornate, elaborately

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ornamented tiara. This effect is achieved by pulling up the frontal hair and rolling up forming an elongated and bicornate lock which has been fastened around by a triple ornamental band, very conspicuous at the rear side. The forehead in the middle is decked with an exquisitely rich rosette or a jewellery of floral shape from which proceeds an ornamental band, like a diadem, going round the head. This band has again two more floral bosses to adorn the head laterally crowning the ears. From the central rosette on the forehead as well as from the band proceed ornamental strings going up to the rear and fasten the top bicornate lock with the band at the rear. Though executed in a different fashion, bicornate type of hairdo is noticed in some of the Mathurā terracottas.[3] The back hair is neatly done up in a leaf-like fashion bisecting from the petiole and the hair-fall is all around fastened to an ornamental chain. The ear ornaments are heavy and large, each composed of a rosette surrounded by two rows of petals, all probably made of superior metals and studded with precious stones. Similar heavy and large size ear ornaments of different varieties have been noticed on the female terracotta figurines of the Śunga period.[4] The necklace, only one in the present case, is composed of the globular and gadrooned beads, intermittently concatenated in a string, and worn in such a fashion that the middle gadrooned bead serves as a pendant. Dhavalikar identifies this necklace with the *phalaka-hāra* referred by Kauṭilīya and finds parallels in the specimens worn by women painted in the early cave temples at Ajanta.[5]

As noticed in some of the female figurines of this period a long narrow stole is worn by the mother over her left shoulder and across the body in the upavita fashion.[6] Similar to the mother-and-child terracottas found at Ahichchhatra[7] and at Mathurā[8] the mother here holds the child in her left arm. In the right hand upraised, which has no parallel in other centres, she holds either a bunch of mangoes as in some cases or a toy to amuse the baby. The right hand in the Ahichchhatra figurine is simply hanging down and that of Mathurā is supporting the child. It is easily noticable in the present case that the baby, matching with the plumpness of the mother, has ear ornaments as well as bangles in its right hand clasping the mother at her back. The artist has succeeded in moulding a heavy but healthy looking mother-and-child figure giving it an impressive and sensitive appearance coupled with vitality and simplicity of form.

The purpose of this art was to satisfy the need of the society for a fertility goddess. It was either used as a votive offering or thanks giving for favours received or as an image of mother goddess it was included among the household deities propitiated during the dangers of child birth.

2. *Crocodile* :

The animals and other lower beings that usually figure in the terracotta art are bull, elephant and horse, and rarely boar, monkey, dog, birds, fish, frog and *Makara*.[9] As a *vāhana* or conveyance of *Varuṇa* and *Gaṅgā* *Makara* is found modelled in the terracotta art in its normal shape, of course not in the normal size. The present piece with a predominant head and dwindled body betray not the usual Indian *Makara*, but a peculiar phenomenon probably thanks to the Roman contact. It is made of clay in the round, hollow within, produced by the effect of a double mould technique. Its predominant head was a wide opened and upraised mouth and its body is dwindled into insignificance and is beyond recognition. It is placed on a base or a pedestal for keeping it erect at the rituals. It has on the top two perforations, one on the snout and the other on the tail, in order to suspend it as a pendant or to tie as an amulet. S.B. Deo has discovered a 'Makarikā' ornament in the Navasa excavation which he has attributed to the early Sātavāhana period.[10] This *makara* ornament consisted of two *makara* heads in addorsed position. The motif of the addorsed *makara* heads emitting pearls, used as a pendant in a necklace, is noticed in a torso from Mathurā.[11] *Makarikā* ornament is also found depicted in the *mukuṭa* of Gupta icons. While the north Indian *makara* motifs were intended to represent the auspicious *vāhana* of *Varuṇa* or *Gaṅgā*, the *makara* terracottas of the Sātavāhana period were probably used by navigators. Since the period witnessed hectic maritime activities promoting foreign trade, the crocodile image must have been worshipped in the houses of navigators or used for ritual purposes by them, besides wearing it as pendant or amulet while on navigation in order to appease the fury of crocodiles and to protect themselves from the rough sea.

3. *Aśvamēdha Seal* :

This seal is made of clay; reddish in colour; diametre 3.2 cm; thickness 1 cm. It depicts a horse standing on an altar (*pīṭha*) in an angular way and a sacrificial pillar (*yūpa*) is erected before it. The legend starting at XII reads *KHA DA SA MA (MI) SA*. The depiction of horse and *yūpa* is undoubtedly meant to commemorate the event of a horse-sacrifice usually performed by kings after their victories. According to the Nānēghāṭ inscription of Nāgamnikā, Sātakarṇi I performed several sacrifices including two Aśvamēdhas, In the Sātavāhana genealogy the name of *Skanda* figures in *Skandastambhi*, *Skandasvāti* and *Śivaskanda* Sātakarṇi. But none of them is so far known to have performed any sacrifice, not to speak of Aśvamēdha. The name 'Svāmin' and the palaeography go to suggest the possibility of the Kshatrapa influence and the seal thus might belong to the later Sātavāhanas. But at the present state of knowledge nothing definite can be said about the identification of this king.

Acknowledgement

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SCULPTURE UNDER THE CHALUKYAS OF BADAMI

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Chalukyan sculptural art has received far less attention than Gupta art, though both the dynasties played an equal part in reviving Hinduism and rejuvenating art in their territories. After the fall of the Guptas at the end of the fifth century A.D., it was the powerful Chalukyan empire which under Pulakēśin II checked the advance of the emperor Harsha from north India and of the Pallavas from the south. In the sphere of art, the Early Chalukyas maintained and invigorated the renaissance of neo-Brahmanical art that was stimulated by Purāṇic myths and legends. Rich and diversified sculptures that were far different in tone and temper from the Gupta works filled the temples at Aihoḷe, Paṭṭadakal, Bādāmi and Mahākūṭa. While the spirit in Gupta art was inward and contemplative, where form and thought were one, the Chalukyan spirit is outward and worldly. A stage had reached in Gupta art when no further realisation of the Divine concept was possible. The 'Ideational' spirit of Gupta art swung towards a more dynamic and lasting style in the Chalukyan territory, where the activity of Gods and Goddesses could infuse the artists to fury, majesty and mystery. The art style was indigenous and distinct.

It was also the golden phase of Indian renaissance when the ten heads of Rāvaṇa and the eighteen hands (arms) of Naṭarāja were not incongruous with the depiction of transcendental truth; instead it facilitated the continuation and development of Indian art in the same dramatic manner that went to make the Chalukyan phase reach a "classical" idiom. The iconographic formulae which the Chalukyan artist evolved was more than a mere commingling of the Gupta and Pallava schools; it was a new evolution of iconographic forms which later became the basis for the final codification of the *śilpa* canons.

The contribution of Chalukyan sculptural art lay in inspiring later schools of art, such as the Rāshṭrakūṭa and Late Chāḷukyan (of Kalyāṇa). More than the simplicity and vigour of the declineation of form, it is the inspiration it provided for the chiselling of iconographic forms that matters most. Both aesthetically and intellectually the sculptor attained great heights in symbolising Purāṇic myths and truths that were to be the basis for the future development of Indian art.

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Religion

The period from the fourth to the seventh centuries A.D., was one of serious intellectual debate between Buddhism and Brāhmaṇism. Buddhism was steadily losing ground, though it received royal patronage. Though Hieun Tsang, who travelled in India from A.D. 630 to A.D. 644 tried to give a bright picture of Buddhism, it appears from his records that the progress of the religion had been arrested by then. Buddhism had reached a stage when no further perfection in the idea of *bōdhi* was possible. Thus a dialectical change was imminent when reaction was to take place. Prof. Niharanjan Ray remarks that "a quest seems to have reached its ultimate destination".[2] The new stream of culture, namely, neo-Brāhmaṇical developed with a new vigour. This Brāhmaṇism (known traditionally as *Smārta-Paurāṇika Dharma*) was different from the Brāhmaṇism of the *Vēdās*, *Āraṇvakas* and *Upanishads*. The *Purāṇas* (such as the *Vāyu* and *Varāha*) became the religious literature of the period. The image worship of Gods became popular, as stated in the *Vishṇudharmōttara Purāṇa*. A multiplicity of forms of Gods was gradually evolved. The ennobling of philosophic concepts through iconographic formulae began in the first, pre-Pallava phase of Chalukyan art (A.D. 535-642). As Vaishṇavism received a greater impetus in the first phase, the forms and *avatāraās* of Vishṇu were sculptured in great quantities, while in the later phase, Śaivism played the dominant role in the religious life of the Chalukyan kings. The three functions of the Trinity were synchronised in the godhead of Śiva who became the greatest of all *devās* (*Devānām jyēshṭha*). Vedic concepts were modified by the *Purāṇas*, while the artist gave a visual representation to their numerous forms. It was not the Rudra of the Vēdas who caused death and disease among men and cattle, but the God of Gods who humiliates Brahma and Vishṇu, who gently embraces Pārvatī, dances the dance of creation and destruction and tramples over the wicked, now. With the active support of the Chalukyan rulers, Brāhmaṇism was accepted and expanded. In order to provide a broad base to the Brāhmaṇical faith, the major sects namely Śaivism and Vaishṇavism, as also the minor sects of Śāktas, Pāśupatas, Kāpālikas, Kālāmukhas and Gāṇapatyas were also accorded a place in the Hindu fold. Buddhism and Jainism too received equal patronage. As art became the vehicle of the spiritual conceptions of the people, a crystallization of philosophic concepts in stone took place through the myriad images of Vishṇu, Narasimha, Varāha, Śiva and Mahishāsuramardinī. Minor deities, such as Lakulīśa, Gaṇapati, Pārśvanātha and Buddha served to infuse craftsmen of all sects to strive for the revival of a new religion and art. Within a short span of three centuries to have revived Hinduism through innumerable temples was no mean achievement. The entire ramifications of a temple, with its pillared halls, verandas, śikhara, decorative doorway, sculptured panels of Gods, enchanting *mithunas* and comical figures was an indirect triumph of neo-Brāhmaṇism. The vigour of the new faith was represented in the form of monumental figures and when the architectural model had been crystalized by the invention of new iconographic forms which is clearly seen in the second phase of Chalukyan art.

Art Styles

The Chalukyan reliefs depict a period when indigenous heritage grew with a distinct local dialect. They do not exhibit the common characteristics of the contemporary schools of the north or of the Deccan—the Gupta, Ajanta or Kaṇhēri styles. The artistic movement was not characterised by the Gupta ideal of plasticity, but by a dialectical interaction of earlier and Chalukyan art traditions. This is not to suppose that Chalukyan art developed in a vacuum. The reliefs show a relation with the elegance of the sculptures on the gateway of Sāñchī, the voluptousness of Mathurā, the liveliness of Amarāvati, and the Gupta classical ideal of form and were definitely influenced by the Pallava school.

Gupta influence is clearly discernible in the sculptures of *Nandivāhana* Śiva and Vishṇu in the Durga temple, in the newly discovered 'head of Śivā at Aihḷoe and the figure of *dvārapāla* in Mālegitti Śivālaya in Bādāmi. Gupta influence can be seen in the serene radiance of the face, the subtlety of expression and of posture, the curving and merging of volumes of form and the refinement of poise. The Veṅgi idiom of supple form and elongated bodies is felt in Chalukyan art in the first phase while the quality of attention received a further impetus through the Pallava style in the second phase.

The Chalukyan artistic development may be divided into two phases on the basis of art style (as in architecture). The first phase extending from about A.D. 500 to 643, or the pre-Pallava phase and the second from A.D. 643 to 757, *i.e.*, the Pallava interregnum and post-Pallava. The year A.D. 643 is a landmark when the slow infiltration of Pallava style began. However, the Chalukyan artists did not borrow their style in entirety. They transformed it with their own indigeneous genius. The Pallava style is more evident in the second phase when the indigenous tendency of balance and simplicity were combined with the Pallava feature of elongation of form.

The unique quality of the Chalukyan reliefs lies in their poise and balance. The plastic modelling of the body is refined and delicate. The two qualities constituting plasticity are the linear rhythm (which is entirely its own) and the soft rounded volumes. These two antithetical qualities are blended to make the sculpture surge with an inner vitality through the body, which is represented as an organic whole. The attennuated form has a striking grace, charm and emotional content. In contrast to the summary modelling are the details of garlands, head-gear and weapons.

The composition in Chalukyan art is rich and varied and at the same time simple. The principal deity occupies the central major place while subsidiary figures such as attendants or minor gods or *gāndharva* couples are smaller. Thus, as in Gupta art, in both religious and secular reliefs the overcrowding of figures is avoided. The flowing linear rhythm binds all objects in one continuous stream as in Veṅgi art, while the solid volume renders them with a discipline. This unique feature is noticeable both in cave art as well as sculptures in structural temples. The combination of these two canons, within a solid frame go to make the sculptures more pronounced in an architectural framework.

Action and movement are well depicted in sculptural art, as for instance, in the newly discovered *Kālārimūrti* of Śiva and *Tripurāntaka* panels from Paṭṭadakal.

The Chalukyan artists, like the Gupta artists, displayed an imaginative mind in the selection of religious themes. From the epics and *Purāṇas*, mythological stories *Trivikrāma*, *Naṭarāja*, *Kirātārjunīya* and others were reproduced in a cosmic granduer. In the field of erotic art they were largely inspired by the dramatic portrayals of romantic love by classical poets such as Kālidāsa (Ravikīrti's *praśasti* clearly mentions his name). The *Madhuprāna* scenes, *Kaṇṭhāślēsha*, *Kachchāgṛiha* and *surāta*, which were practiced by the elite and idealised by poets was effectively depicted in sculpture.

The Bādāmi cave sculptures dated about the latter half of 6th century A.D. are huge and monumental (about four metres in height). The proportions are massive and cosmic in character. The massiveness is exhibited through round and full modelling, broad shoulders, heaving chest, heavy crown, the gigantic size and the angular gestures. This character of expansive superhuman energy is unknown to Gupta, Sarnath or Mathurā art. The monumental quality of the reliefs is due to two reasons. First, is the cosmic myth it portrays as for instance in the *Trivikrama* panel and the second is the roundity of the image. The energy seems to burst forth in all directions. It was the ideology of the rigorous neo-Brāhmaṇism which was responsible for the cosmic quality of the sculptures.

As a contrast, to the massive figures the bracket figures in Cave No. 3 are exquisite pieces of art. Beneath the decorative tree, in a graceful pose and with a quiet dignity, the couple or *Śālabhanjikās* stand in an easy posture while their compact bodies depict a lyrical rhythm.

The sculptural art of structural temples may be divided into two phases, the pre-Pallava and post-Pallava period. The first phase began at Aihoḷe and continued in Mahākūṭa. The reliefs such as those in the temples of Lāḍkhan, Durgā, *Huchchappaya Maṭha*, Kunti group and others are noted for their pose and balance which is neither spiritually deep nor heavy. The freedom of the artist finds a place in the modelling of secular subjects especially in the figures of *mithunas*. The emphasis is not details of the appearance, as in Hoysaḷa art but on the gesture, poise and delicacy of form. This is more evident in the second phase.

Gupta influence is markedly noticeable in the first phase of Chalukyan art. The newly discovered head of Śiva (now housed in the Aihoḷe Museum) excellently harmonises the form and ideology of Śiva. The piece which is discovered in the excavations in *Chikki Guḍi* reveals clear expression and feature. The eyes are half-closed, but neither heavy nor dreamy. He has a moon on his head which is adorned with a jewel.

The Bādāmi structural temples (the three *Śivālayas*) represent the intermediate stage between the early pre-Pallava and post-Pallava art styles. In the sculptures of *Mālegitti Śivālaya*, delicacy has already set in (as seen in the figure of Vishṇu) but the elongation and compactness of Paṭṭadakal are not marked. The form is not idealised; it retains its human, earthly quality.

At Mahākūṭa, the indigenous style of Aihoḷe is continued. However, there is a marked trend towards refinement, grace and elegance. The development towards compactness of form and of elongation of limbs has already begun. This is clearly seen in the figures of *Ardhanārīśvara* on the northern wall of the Mahākūṭēśvara temple. The gigantic figures of *Bhairava* and *Bhairavī* in Mahākūṭa echoes the naturalness of form which began at Aihoḷe. The massive 'heads' of the *Saptamātṛikas* (now in the Aihoḷe museum) reveal that, dictated by religious ideas of neo-Brahmaṇism, the form assumed gigantic proportions.

The second phase which began at Aihoḷe (at *Rāval Phaḍi* and reached its culmination at Paṭṭadakal is marked by Pallava influence in the style of sculptural reliefs. The elongation of form and the attenuation of limbs are integrated gradually so that by the time it reached Paṭṭadakal, the local style is developed into a compactness, elegance and charm that make the Chalukyan figures enchanting. Linearism is marked while roundness is thinned out (as in Pallava style). The Paṭṭadakal reliefs exhibit a remarkable vitality as seen in the recently discovered sculptures of *Kālārimūrti* and *Tripurāntakamūrti*.

Religious Art

The art of the Chalukyas was religious mainly pertaining to Śaivite and Vaishṇavaite faiths. Their source of inspiration was partly the *Purāṇas* (especially the *Bhāgavata Purāṇa*) and the epics, and partly the tradition of the Guptas in the north. As in the Gupta period, religious art dominated the artistic movement of the Chalukyas also. Nowhere else in a restricted area sculptures have been found in such large numbers as in the Chalukyan territory.

The Neo-Brahmanism which had come into being in the 4th and 5th centuries A.D. manifested itself at Udayagiri and Bādāmi in the form of Gods and Goddesses. The evolution of their forms is narrated in the *Purāṇas* and *Āgamas*. The Chalukyan period was characterised by an iconographic transition (as in the field of architectural and stylistic change). The evolution of iconographic formulae is best illustrated by the position of the *Ashṭadikpālas* which kept alternating till definite positions were fixed. Similarly in regard to the forms of Śiva' the *Anugraha* and *Dakshiṇa* aspects had not crystallised. While idiosyncracies are noticeable in the images of *Samhāramūrti*, marked deviations in symbolism from that of the description in the *Purāṇas* occur. Thus, it may be seen that this was the period when

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experiments in iconography were taking place and were embodied in the *Śilpa* texts later.

There was a co-mingling of ideas between the south Indian norm of the Pallavas with those of the north. While creating a new vision of iconography, which was primarily local, the Chalukyan artists had to experiment with a number of iconographic features which would suit the religious requirement, the architectural model and the artistic taste of the religion.

In the first phase of Chalukyan art, *i.e.* the pre-Pallava period, Vaishṇavism received greater impetus. Vishṇu was the royal deity of the Mangaleśa and the Chalukyas had the boar as their emblem which they claimed to have received through the grace of Nārāyaṇa. In the second phase, Śaivism became the dominant religion. However, it is interesting to find that the Chalukyas accorded equal importance to the gods of the Trinity, namely Brahma, Vishṇu and Śiva. The images of the three gods are carved simultaneously on the ceilings of the temples of *Kuntiguḍi* No. 2; and *Huchchappayamaṭha* etc. However, Brahma, who was an important god in the first phase, lost his importance in the second phase.

The elaboration of a philosophic concept occurred during this period under study. Vishṇu not merely sleeps on the Śēsha as *Anantaśāyin* (depicted in Gupta, Pallava and Chalukyan art), but is seated on the Śesha as though actively engaged in suppressing the forces of the nether world. Vishṇu seated on the Śēsha is a rare depiction in Bādāmi Cave No. 3 which future artists readily imitated, and served as a model to similar figures in Ellora and Dadikkombu near Dingul.

The grandest examples of the representation of cosmic myth are the pannels of Vāmana and Tṛivikrama in Bādāmi caves No. 2 and 3. The form is elaborate in depiction and dramatic in character. The credit for such a unique and colossal depiction of *Virāṭa-purusha* which was inspired by the *Bhāgavata Purāṇa* should go to the Chalukyas who set the sculptural norm only to be depicted in Mahābalipuram and at Ellora. A unique image of Krishṇa lifting the *Govardhanagiri* in *Mālegitti Śivālaya* at Bādāmi depicts how the Chalukyan tradition was followed in later schools of art in concept and composition.

The Chalukyas accorded importance to some of the *avatāras*, such as the *Varāha*, *Vāmana*, *Trivikrama* and *Narasimha*. The Chalukyan kings considered their empire as having been received by the grace of *Varāha*. It is not surprising that colossal, massive and forceful image of the god in *pratyālīḍhā* pose are carved in the *Durgā*, *Virupāksha*, *Kālakālēśvara* and other temples. They elicited the admiration of the Hoysaḷa and Rāshṭrakūṭa schools. The Chalukyas were also the first to carve the image of *Sthauna Narasimha* as tearing open the belly of Hiraṇyakaśipu. This incarnation continued to be represented in similar iconographic form in Late Chalukyan and Hoysaḷa art. A unique example of the fight between the god and *Hiraṇyakāśipu* is in the *Mallikārjuna* temple at Paṭṭadakal.

Elaboration of symbols took place in this phase. Though the worship of Sūrya was known from ancient times, when he was depicted in Iranian mode and in the Gupta period as holding two lotuses, the Chalukyas having borrowed the concept and form, elaborated over it by depicting Ushā and Pratyūsha as shooting arrows (in the *Huchimalliguḍi*) and as being drawn by seven horses (in the *Virupāksha* temple, Paṭṭadakal).

As stated earlier, Śaivism rose to importance in the second phase of Chalukyan art where, Śiva was Mahādēva and *Devānām Jyeshṭha*, the senior most among dēvas. Both the iconic and aniconic representations were known in Chalukyan art. Iconic representations of Śiva bound in richness and variety in Chalukyan art. The concept of *Aliṅgana mūrti* was born at Aihoḷe and was elaborated at Ellora and Hāvēri. The Chalukyas were probably the first to carve the *Somaskanda mūrti* in the *Kāśivīśvēśvara* temple at Paṭṭadakal. Śiva, the god of death, as well as the destroyer of death itself (*smaśāna-nṛitya*) was accorded a prominent position in the Chalukyan period. An example of iconographic form ennobled in Paṭṭadkal is the dynamic figure of Tripurāntạka. A similar panel is seen in the Kailāsanātha temple at Kāñchīpuram. The story of the destruction of an elephant *asura* by Śiva and his wearing the skin of the elephant is recorded in *Śaivāgamas*. This theme which is represented in the Mallikārjuna temple is continued in the Amṛitēśvara temple at Amṛitapura where Ṣiva has sixteen arms as in Elephant and Haḷebīd.

New forms were created during the eighth century A.D. to emphasize śaivite mythology. The newly discovered image of *Kālārimūrti* perhaps served as an example to the Rashṭrakūṭa artist. A splendid example of *Tripurāntaka murti* from Paṭṭadakal is now in the Bādāmi museum. The war against *andhaka* by the spirit of *vidyā* represented by Śiva is described in the *Varāha Purāṇa* which inspired the Chalukyan sculptor to accord a place to the fearful aspect in the Jambuliṅga temple at Paṭṭadakal. The numerous images of Śiva on *apasmāra* signified the growth of *aghōra* cult, but the from was not fearful. The other *aghōra* images *viz. Vīrabhadra* and *Bhikshāṭana mūrti*, establishes the fact that they heralded a new era in sculptural canon.

Śiva, the great master of *Nṛitya* danced ecstatically on the burning ground of illusion. It was more than a mere expression of *Karaṇa* and *aṅgabhāya* which the figure of dancing Śiva in Bādāmi cave No. 1 depicts. The *Chatura* mode of dance reveals a new vision of iconography. Though the Vishṇukuṇḍins did carve the Naṭarāja image, the iconographic formula was evolved by the Chalukyas. The tradition of carving *Tāṇḍava Śiva* in the *kūḍu* arch of the *Sukanāsa* was followed at Alampur in the *Tāraka Brahma* and *Bāla Brahma* temples.

A mythological theme is crystallised in a suggestive manner that becomes the source of inspiration for further astists. Śiva practised severe austerities in the mansion of *Devī* on the Umā Tunga hill standing on one foot for a whole *yuga*. The scene is given concrete expression in stone by the Chalukyan sculptor in Mahākūṭa. The *Dakshiṇā* form of Śiva is suggested indirectly through a solitary example in the *Virūpāksha* temple (Paṭṭadakal), where Śiva is in *yogapaṭṭa*. The yogic aspect is glorified in Ellora where the *anugraha* aspect is also depicted. Since the Chalukyas had yet to contend with socio-religious forces in the building of a new empire and the revival of a faith, the destructive aspect was emphasized more than the boon-giving aspect. Hence the *abhaya mudrā* in both Śaivite and Vaishṇavite images are rare, and instead, we find a Nātulanga fruit.

In the heightening of the spirit of sculptures, the Chalukyas were not inferior to any other school. The Guptas carved *Ardhanārīśvara* form, but the spirit was lacking. The decorative drapery, the side knot of a feminine grace, and *sarpa kēyūra* of Umā were to be emphasized by the Chalukyas at Mahākūṭa and Paṭṭadkal, while in Bādāmi it was the majestic air of Śiva that was emphasized.

The evolution of a definite form can be seen in the *Harihara mūrti* a combination of Śiva and Vishṇu.

The chiselling of a rare iconographic form of *Ūrdhvarētas* in Mahākūṭa indicates the imaginative bent and religious zeal of the Chalukyan artist. The *Vāyu Purāṇa*, too, mentions this form, but it was not continued in the second phase.

The Chalukyas who had to have a broad foundation of religious toleration, absorbed the *Pāśupata* sect and hence gave an eminent place to the figures of *Lakulīśa*, who is depicted as holding a *lagula*.

The female principle, the super duty of *Śāktas* which was worshipped from early times was glorified in the Hindu pantheon. An iconographic form which has been ennobled is the carving of the *Mahishāsuramardinī*. While in Kāñchīpuram she is seen seated on a lion, at Aihōḷe she is standing in a dynamic form piercing the demon with her *śūla*. The Chalukyan depiction is simple, cosmic, yet graceful, which hitherto had not gained much prominence. The *Saptamātṛikas* were given importance by the Chalukyas as evidenced by huge sculptures and torsos of the Mothers discovered at Aihoḷe.

The Chālukyan kings persued a policy of religious toleration. Gaṇeśa, the important deity of the *Gāṇapatyas*, was given a major place and numerous, massive images have been unearthed in Aihoḷe recently.

It is in the Chālukyan period that we can trace the gradual development of the concept of guardian deities who were originally four in number in the shrine in Jyotirliṅga (*Indrā*, *Yama*, *Varuṇa* and *Agni*), other idiosyncracies such as *Kārttikēya* and *Mahishāsuramardinī* and other *dikpālas* are also represented in varying stages, while finally in the second phase, the *dikpālas* occupy their proper places in the *Pāpanātha* temple and the *śilpa* texts seem to have defined guardian deities and their positions.

Though no significant contribution was made by the Chalukyas to Jain and Buddhist iconography, they gave positive encouragement to Jainism. Figures of *Ambikā*, *Pārśvanātha*, *Supārśvanātha* and *Mahāvīra*, *Yakshas* and *yakshis* and *samavasaraṇa* scenes all found a place in Jain temples which were richly decorated. The Buddha and Bōdhisattvas and Jātaka stories (in the Buddhist cave temple on the Meguti hill) were chiselled and they have been now identified.

Purāṇic myths, such as *Pārijāta Apaharaṇa*, the stealing of Kalaśa by Garuḍa, depicted in Bādāmi Cave No. 3 were first ennobled by the Chalukyan artist. Other myths such as the 'churning of the ocean' and the 'battle between the *dēvas* and *asuras*' represented in Bādāmi cave No. 3 were assimilated in later schools. The greatest contribution of the Chalukyas lies in the depiction of the scenes from the *Rāmāyaṇa* and the *Mahābhārata* in Paṭṭadakal. The Rashṭrakūṭa artists were inspired by these narrative panels which became a popular art motif in Indian art. It was the Chalukyan artist who gave prominence to the events narrated in the *Bhāgavata Purāṇa* and the epics; the Rashṭrakūṭa artist gave new dimensions to it.

Secular Art

Though Chalukyan art was pressed into the service of religion, it did not mean that it had no role to play in secular life. The numerous *mithunas* in various erotic postures described in Sanskrit literature assumed immense importance and became a popular motif.

The sublimation of mildy erotic couples occurred in the Chalukyan period. Though the Amarāvati school and the Gupta-Vākāṭaka school (Ajanta) were primarily responsible for the depiction of lovers embracing (recalling the themes of Kālidāsa), the credit for the mode of depiction of the *Kāmaśāstrīya* poses should go to the Chalukyas. Apart from the use of *mithuna* motif as an auspicious ornamental motif (*mangala alankāra*) the Chalukyas made a liberal use of this motif—on shafts, brackets of pillars, doorjambs, lintels etc. For the first time, *Maithuna* (or coitus) was depicted in Paṭṭaḍakal and which continued even in the Late Chalukyan temples such as the one at Bagali. It may also be added that orgiastic scenes (in Mahākūṭa and Aihoḷe) first make their appearance during the 7th century A.D. "The shameless goddess" or *Lajjā-gauri* in *Uttānapāda* pose found in Bādāmi, Mahākūṭa and Ālampur is of fertility rites. Thus, this was a period of transition from early to medieval times in the depiction of the erotic motif.

The comical aspect of Chalukyan art is best illustrated by the gaṇas in the caves and *Mālegitti Śivālaya* at Bādāmi. In varying dance pose, expressions and hair styles they lighten the weightiness of wisdom. The norm was continued in Late Chalukyan art.

Thus, in both artistic style and iconographic forms, the Chalukyans treated puranic themes with unusual grandenur and vigour. It was the golden epoch of neo-Brāhmaṇical art, when stone was transformed into the wisdom of the *Purāṇas* and *Āgamas*.

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NOTE ON THE MAHISHAMARDINI PANEL AT SALUVAKUPPAM

MADHAV N. KATTI*

In this article[1] I propose to discuss the panel of Mahishamardini at Sāḷuvaṇkuppam about 3 km to the north of Māmallapuram (more popularly known as Mahābalipuram), Chingleput District, Tamil Nadu.[2] The panel is a bass-relief carved on asmall granite boulder at a distance of about 20 feet in front of the Atiraṇachaṇḍa-maṇḍapa which itself is in the vicinity of the well-known 'tiger cave'. The panel is carved on the front vertical face of the boulder and measures about 6 feet × 3 feet. It depicts the fight between Durgā and the demon Mahishāsura. Both the goddess and the demon are accompanied by their retinues. Mahishāsuramardini is shown in the *āliḍha* pose with her right feet resting on a pedestal[3] and her left leg, with knee partly raised in the *ūrdhva-jānu*, touches the side of her *vāhana* (lion) which is suggestive of a slow movement. It appears as if the goddess is about to get down after her task is accomplished. The figure of the goddess is anatomically very proportionate, with a thin waist, becoming breasts with a *kucha-banda*, a necklace made of three strings studded with pearls hanging down the neck and nicely covering the upper part of her body. Her face reflects composure, tranquility and an expression of achievement of victory over the demon Mahishāsura and is suggestive of the fact that the enemy is not at all equal to her. She wears a *makuṭa* which appears to be a combination of *karaṇḍa* and *jaṭā-makuṭa* with the crescent seen a little above the base of the crown. She also wears *karṇa-kuṇḍalas*. It is interesting to note here that the goddess is shown with six hands,[4] which is a rare feature. The upper right hand holds a *chakra*, the middle an arrow and the lower a sword. The upper left hand holds the upper end of a bow, the lower end of which touches the lower hand and the middle hand holds a *śaṅkha*. The object in the lower left hand, however, is not clearly seen. Her *gaṇas* are of a conventional type. While one *gaṇa* at the top on the proper right of the goddess carries a parasol, the one below that is portrayed as blowing a conch. The others are shown with their weapons. etc. and all are reflective of the happy mood. On the proper left of the *dēvī*, near the leg of the lion, one *gaṇa* is shown as striking at the back of Mahishāsura. It is however worth noting here that the goddess is not accompanied by any *yōginī* in this sculpture. The demon Mahishāsura (in anthropomorphic form) is depicted in front of the goddess as if fleeing from the battle field. He is *shown wearing a kavacha* with belt and his prominent *yajñōpavīta* hanging over the *kavacha* is indicative of his movement.

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His buffalo-face is clearly suggestive of his fatigue and his hands reflect total exhaustion. His face is partly open and nostrils wide and raised. He has no crown or royal umbrella which indicates his defeat in the fight. He is also accompanied by the conventional type of *gaṇas* of whom there are two *kabandhas*, one on his proper right and the other above, which attract our attention. There is a huge figure in the human form wearing a crown but fleeing from the field, in front of the demon. It is difficult to identify this figure. The possibility of his being the *āśu-purusha* form of Mahishāsura has to be examined as it is known from the *purāṇas*[5] that Mahisāsura transformed himself in various forms including the human, in order to make the goddess confused. The carving in general is very interestingly done.

It may be mentioned here that this panel has not received the attention of the art-historians as required and is not known much. There is, however, a brief notice of this in the '*Cave Temples of the Pallavas*', by Shri K.R. Srinivasan.[6]

A study of this panel will not be complete without a comparative assessment of the same with the Mahishamardini panel in the rock-cut cave known as 'Mahishamardini Cave' in Māmallapuram[7] proper. The panel at the rock-cut cave differs significantly in its style and execution, though the theme is the same. In that Mahishamardini is shown riding on her *vāhana* the lion and both the goddess and demon Mahishāsura are portrayed as being very much involved in fight. The panel depicts a forceful action. Mahishāsuramardini is shown as if enagaged in showering the arrows on Mahishāsura.[8] The demon wearing a crown and accompanied by the royal umbrella, with a club carried by both of his hands, appears as if he is facing the goddess, though the superiority of the strength of the goddess is clearly indicated. The depiction indicates that it was carved during the period of Māmalla (A.D. 630-668),[9] when many forceful life-size sculptures and rock-cut temples came to be carved at this place, which even today bears testimony to his name. Our panel, under discussion, has the same theme but can be compared only in a general way with this famous panel, whereas the contrast between the two is quite apparent. Even speaking of the details, in our panel, Mahishāsura is not shown wearing a crown or accompanied by the royal umbrella and he appears to have lost the battle as he is depicted as taking off from the field. On the other hand, the goddess is depicted as having, a full composure of mind, her appearance being powerful, and thus the artist has depicted that she has gained victory in the fight. It reflects the next sequence after the fight (depicted by the one of Māmalla's time), *viz*. Mahishāsura accepting defeat.

As for the dating of this panel, Shri K.R. Srinivasan has assigned this to the period of Rājasiṁha (A.D. 700-28)[10] along with the rock-cut cave Atiraṇachaṇḍa-maṇḍapa. Just as the rock-cut cave has the pillars of 'Mahēndra style', but much improvised, this panel also reveals some early features like the facial expression of the human figure before Mahishāsura and the *kabandha* figure above Mahishāsura with its hair spread which can be compared with some figures of the period of Mahēndravarman.

The presence of a ruined temple of an earlier period in its vicinity[11] may hint at the possibility that this panel could have been carved prior to the period of Rājasiṁha. However, there are other factors like its resemblence, in style, with the Sōmaskanda panel in Atiraṇachaṇḍa-maṇḍapa, which suggests the period of Rājasiṁha. In the absence of any other direct evidence, I accept the view of Shri K.R. Srinivasan that this panel can be assigned to the period of Rājasiṁha.

It is very significant that this panel differs in style and execution, much from the Mahishamardini panel of the period of Māmalla. It is removed in time by a little over half a century from the latter (of Māmalla's time).

We can find reason for the difference in style and execution of the panel under discussion. Apart from the difference in time, it also represents a stylistic change. A comparison of this which the sculptures of Mahishamardini from the area of the Chalukyas of Bādāmi, provides an answer to this. For example, its comparison with the sculptures of Mahiṣhamardini at Rāvaḷa-phaḍi at Aihoḷe[12] (Bijapur District, Karnataka) shows that though the artist of the panel at Sāḷuvaṇkuppam was inspired in his theme by the earliest sculpture of Mahishamardini, of Māmalla's time, at Māmallapuram proper, he was influenced by the Chalukyan artist in his style of execution of the theme. The peaceful appearance and composure of mind of the goddess is reflective of the Chalukyan sculpture referred to above and in general found in a number of Chalukyan sculptures[13] at Aihoḷe and Bādāmi. The panel is indicative of the atmosphere, if we can call it, found in Chalukyan sculptures. I, therefore, want to draw the attention of scholars to the fact that at least by the time of Rājasiṁha the influence of the Chalukyan school had made a definite impact in the Pallava region including Māmallapuram and its surroundings.[14] We may mention here that in A.D. 642, Māmalla had conquered Vātāpi,[15] the capital of the Chalukyas. He must have possibly brought some artists and sculptors, from the region of the conquered rulers *i.e.* the Chalukyas, who must have played a significant role in the depiction of sculptures or in the carving or construction of edifices in the Pallava area. The sculpture of Mahishamardini at Sāḷuvaṇkuppam, therefore, provides one of such examples showing the influence of the Chalukyan art in the Pallava region.

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1. I am grateful to Dr. K.V. Ramesh, Chief Epigraphist, Shri S.P. Tewari, Dy. Superintending Epigraphist and Shri M. Jayarama Sharma, Senior Eqigraphical Assistant, my colleagues for

some very valuable suggestions, in my writing this article. I also thank Shri L.K. Srinivasan, Superintending Archaeologist, Mid-Southern Circle, Bangalore with whom I worked in Southern Circle, Madras, some time back, when I had the opportunity of visiting in and around Māmallapuram several times.

2. There are a number of Mahishamardini sculptures in and around Māmallapuram. Apart from the one under discussion, we have Mahishamardini sculptures in the Mahishamardini Cave, Mahishamardini rock near the Shore Temple, a small sculpture carved in the cavity of the mouth of a free standing lion in the premises of the 'Shore Temple' etc.
3. This is referred to as *padmāsana* by Shri K.R. Srinivasan *vide* his '*Cave Temples of the Pallavas*' (Published by the Archaeological Survey of India), p. 130.
4. Cf. T.A. Gopinatha Rao, *Elements of Hindu Iconography*, pp. 345 ff.
5. Shri S.P. Tewari, my colleague drew my attention towords this. See his article 'Interpretation of dvirada-dānava', *JESI.*, Vol. VI, pp. 54-55. The chapter on 'Dēvimāhātmya', in *Mārkaṇḍēya Purāṇaṁ* gives a vivid description of the forms assumed by Mahishāsura (see *Mārkaṇḍēya-Purāṇaṁ*, chapter 80).
6. K.R. Srinivasan, *op. cit.*
7. For a detailed description of this panel, *vide* K.R. Srinivasan, *op. cit.*, pp. 154-55, C. Sivaramamurti, *Mahābalipuram*, pp. 19-20.
8. The arrows are, of course, not depicted. The position of the bow with its string pulled up to the ear of the goddess is suggestive of this action.
9. Srinivasan and Sivaramamurti, *op. cit.*, K.A.N. Sastri, *A History of South India*, p. 171-73.
10. Srinivasan, *ibid.* and K.A.N. Sastri, *ibid.*
11. Srinivasan, *ibid.*, p. 130, cf. A.H. Lodghurst, *Memoirs of the Archaeological Survey of India*, No. 33 (*Pallava Architecture*, Part II), p. 47.
12. R.S. Gupta, *The Art and Architecture of Aihoḷe*, plates 76, 84, 87, 105 and 135, where the figures of the gods and goddesses are indicative of their self-confidence and composure, while being engaged in fierce activities. In their details there are some changes like Mahisāsura being shown differently in the sculptures of these regions.
13. The sculptures of the Chalukyan period at Aihoḷe and Bādāmi, like of Narasiṁha, Mahishamardini and other deities in fierce-action, are suggestive of their tranquility and composure of mind are reflective of their full control over the situation.
14. Even from the earlier period, a give and taken between the artists of the two regions is quite possible. But such an exchange and influence can be definitely traced from the time of Rājasiṁha.
15. K.A.N. Sastri, *op. cit.*, pp. 150-51 and 170, M.S. Nagarajarao (ed.),*Chalukyas of Badami*, (Bangalore), p. 66.

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A PORTRAIT OF KRISHNA III ?

N.S. Ramaswami*

The most important event in the reign of Kṛishṇa III, the last of the great Rāshṭrakūṭas, was his conquest of Toṇḍai-maṇḍalam, or northern Tamilnadu. The chronology of his invasion is settled. Kṛishṇa, who came to the throne in A.D. 939, invaded the Chōḷa dominions, partly, no doubt, moved by the impulse of the *digvijaya*, but mainly because he wished to reinstate Vikramāditya III, the Bāṇa, whom Parāntaka I had expelled. He won the decisive battle of Takkōlam in A.D. 949. Whether or not he made a raid through the Tamil country right upto Rāmēśvaram, where, according to the Karhāḍ plates, he "planted the creeper of his fame", it is not doubted that he annexed Toṇḍai-maṇḍalam.

Kṛishṇa remained many years in the annexed country, apparently functioning from Mēlpāḍi in North Arcot District. The Karhāḍ plates say that, at the time the record was issued, he was in Mēlpāḍi distributing among his dependants territories seized from the Chōḷas and receiving tribute from feudatories. But this was not all. He or his subordinates made a large number of gifts to the temples in the region. In one of these a human portrait appears on the *adhishṭhāna* of the Śrī-Mūlanātha temple in Bāhūr. It has been suggested that it is of Kṛishṇa III.

Bāhūr, anciently called Vāhūr, is now a village, about eight miles south of Pondicherry in the Union Territory of that name. But in late Pallava days it was the seat of a celebrated Sanskrit University. The Bāhūr plates of Nṛipatuṅga, one of the last Pallavas, indicate a great centre of learning, a *vidyāsthāna*, which provided teaching is no less than fourteen studies; the four *Vēdas*, the six *Vēdāṅgas*, the *Purāṇas*, *Mīmāmsa*, *Nyāya* and the *Dharmaśāstra*.

Vāhūr continued to be a place of importance in the early Chōḷa period that followed the end of the Pallava rule. Its main temple, that of Śrī-Mūlanātha, is mainly early Chōḷa in style. It is scarcely surprising that Kṛishṇa should have made many gifts to it because it was one of the leading temples of the region. But the question is whether the portrait is his.

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The *garbhagṛiha* and the *ardhamaṇḍapa* are the only survivals of the old temple. All the other structures are undoubtedly of later construction. The difference between the ancient grace and the more modern simplicity leaps to the eye. Even the *vimāna*, strictly so called, the superstructure, is of very recent construction, probably not more than ten years old. But fortunately no attempt has been made to tamper with the sculptures that stand in the *dēvakōshṭhas* and, what is strange, on the mouldings of the *adhishṭhāna*.

The temple faces east. On the southern facade of the *vimāna* there is, of course, an image of Dakshiṇāmūrti in the sole *dēvakōshṭha*; in that of the north, an image of Vishṇu; and in that of the west that of Brahmā. On either side of the *ardhamaṇḍapa* there are images of dancing Gaṇapati in the south, and of Durgā in the north.

Below, where there should be *adhishṭhāna* mouldings there are further sculptural reliefs. These are the temple's artistic glory. On the south there are nine; a seated Gaṇapati, two elephants and five danseuses. The ninth has hot been identified. There are nine more on the north. Four are of dancing poses, another seems to be a kind of parody of them through a portly man in a grotesque pose. There are two more elephants. One niche cannot be identified. The ninth is most interesting; it is that of a monkey picking out lice from the head of a younger one. It recalls the famous sculpture in the round that now stands in front of "Arjuna's Penance', in Māmallapuram.

It is on the western wall that the presumed relief of Kṛishṇa appears. There are five niches in all here. Two are dancing poses, the third is an elephant. The fourth is that of three persons standing in a row. Next to it is the Kṛishṇa relief if it may be so identified.

The figure wears a crown, bears an unidentifiable object in the uplifted right hand, and there are rings in the elongated ears. There is a three ringed necklace around the neck and what would nowadays be called a belt of three cordons around the waist. The drapery of the cloth around the legs are incised at the knee so as to show the folds. On the whole, it is not a very kingly figure. But this may be due to some deplorable attemps at reforming or repairing the face.

It is impossible to date the *vimāna* as it appears today. The only recourse is as intelligent a guess as is possible. I think that an important factor is the presence of the monkey relief. This is so uncannily similar to the Māmallapuram masterpiece of humour that no art historian can fail to realise that it is modelled on the other. But it is not possible to derive a firm date from this fact. For, the Māmallapuram sculpture is, as it were, a vagrant in its present place.[1] Though it now stands in front of "Arjuna's Penance", it was set up there in the last century after having been dug out from near the Mukundanayanār temple. Since this temple is austerely simple, with not a stroke or line of sculpture, the group did not belong to it. It is quite possible that it was made as a kind of exercise by the advanced pupils of the school of sculpture of which there is evidence at every turn in Māmallapuram. If this view is justified, it is impossible to assign it a fixed date that will help us in dating the *vimāna*. The monuments in Māmallapuram arose in the eigth century, but the sculpture school must have lasted till a later date.

Only if Kṛishṇa had built or renovated the temple could his presentment appear here. The temple could not have been built before A.D. 949, the Takkōlam year.

Theoretically it could have been in the years that the Rāshṭrakūṭa remained in Toṇḍai-maṇḍalam. There are no Chōḷa inscriptions or artefacts for many years after Takkōlam in South Arcot District, the area to which Bāhūr belongs geographically.[2] Kṛishṇa had Toṇḍai-maṇḍalam all to himself. Since he was a man of piety, there can be no bar to the supposition that he did build or possibly rebuild the temple.

While Kṛishṇa was a generous benefactor of temples in Toṇḍai-maṇḍalam, he and his subordinate were particularly active in Bāhūr. Six of the seventeen inscriptions on the temple noticed at the beginning of this century[3] and three of the six added in the 1970's[4] pertain to his reign. They range in date from his nineteenth to his twentyseventh regnal years.

The earliest, that of the nineteenth year, records that a donor gifted ninety sheep to maintain a votive lamp. Three belong to the twenty-second year. One announces a gift of a lamp, the second that of sheep, the third a sale of land. Two years later were given more gifts. One records a gift of forty-six sheep. The second is important. It affords a clue to the possibility that Kṛishṇa did build or rebuild the temple. For, it records that a donor gifted two pillars, two pilasters and a beam towards a *maṇḍapa* in front of the sanctum. This *maṇḍapa* must be the *ardhamaṇḍapa*. There is no warrant for the belief that the sanctum and the *ardhamaṇḍapa* were always built together in tenth century Toṇḍai-maṇḍalam. Here, then, is evidence of a construction in the temple in Kṛishṇa's reign.

Kṛishṇa could not be expected to build a Rāshṭrakūṭa temple in Bāhūr. Naturally his artists made a temple in accordance with the idiom prevailing in Toṇḍai-maṇḍalam. True, the temple bears an early Chōḷa look in its original parts. But that is only what is to be expected.

All the reliefs in the *adhishṭhāna* belong to the same period. This is evident from the fact that all the five elephants are exactly alike and that all the dance poses pertain to one performing art.[5] It is reasonable to suppose that the single human relief is that of the king. The three persons in the contiguous niche are neither kingly nor sacerdotal. They must be magnates of the kingdom, perhaps among those whose gifts to the temple are recorded in its epigraphs.

If the identification is correct, here is Kṛishṇa II, the only portrait of him known to survive. It is important to realise that the Chōḷas added their portraits to the walls of some of the many temples they built. The Māmallapuram reliefs testify to this royal practice in Pallava days too. Thus both before and after Kṛishṇa this custom obtained in Toṇḍai-maṇḍalam. He was doing nothing that was new to the traditions of the land of his conquest.

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34

WESTERN GANGA JAINA VESTIGES AT TIPPURU, DISTRICT MANDYA

I.K. Sharma*

Jainism in early medieval Karnataka virtually held its sway due to effective involvement and patronage of some powerful rulers of the Western Gaṅga dynasty. Certain everlasting monuments built in stone as at Śravaṇabeḷgoḷa and Kambadahaḷḷi are masterpiece creations which have retained till now their original character and environs, while the humble ones, of the earlier periods, got either perished or largely concealed under the later reconstructions and elaborations.

Inscriptions alone provide some data of the Jaina remains that existed prior to 8th century A.D., in ancient Gaṅgavāḍi. An account of these inscriptions, is briefly stated here as a necessary prelude to the new finds.

I. *Inscriptional Evidences*

The first ruler of the Western Gaṅga dynasty,[1] Koṅgaṇivarma Mādhava (350-370), though a *Paramamāhēśvara* and *paramabhaṭṭāraka*, established on the hill of Mandali,[2] in District Shimoga, a wooden *basadi* (*Chaityālaya*) on the advice of Simhanandī, a Jaina *Āchārya*. Similarly at the instance of another Jaina *guru* named *Āchārya* Vīradeva, King Mādhava II (370-390) granted lands at Kumārapura[3] village for the benefit of a Jaina sanctuary. Many early Gaṅga rulers were devout followers of brāhmanical gods but eclectic in their approach towards other religions. Tadangala Mādhava III, himself a worshipper of *Tṛiambaka Śiva*, gave a village grant to *Āchārya* Vīradēva for the establishment of a house of worship for the Jains.[4] His son Avinīta (466-85) who performed an *aśvamēdha* and meditated on the feet of Hara (*haracharaṇāravinda praṇipāta*), granted villages[5] to the Jaina temples on the advice of Vijayakīrti. A Jaina temple called *Śrī vijaya Jinālaya* existed at Talkad, perhaps named, after this Jaina teacher.

Durvinīta (495-535) was a devotee of *Vishṇu*,[6] a staunch upholder of Vedic *dharma* and performed *hiraṇyagarbha mahādāna*, but constructed a Jaina temple at Kogali, district Bellary. Jaina scholars adorned his court. Besides, Durvinīta was himself a student of Pūjyapāda, a Sanskrit scholar who wrote Jaina grammar. My recent exploration at Kogali revealed the existence of a deserted Jain temple closer to the *Ūramma* or Kātyāyanī temple in the midst of the village. The Jaina relics, as extant, are of the Hoysaḷa period. The star shaped plan of the basement, the lathe-turned pillars in the central *aṅkaṇa* of the roofless *maṇḍapa*, the Jina Pārśvanātha image etc. clearly display Hoysaḷa features. But there is no doubt that this Jaina Temple has come up over a ruined one.[7] A large number of hero-stones, inscribed and sculptured, attest to the Gaṅga influence at the place, although none of them could belong to the times of Durvinīta. This could also be the fact in respect of other far off places like Maṇḍali, District Shimoga. It may be stated here that Kogali had earlier yielded a hoard of bronzes and specially the figures of Mūlanāyaka Mahāvīra is a noteworthy specimen, now in Madras Government Museum, exhibiting Gaṅga workmanship.[8] One *Mokkara bāsaḍi*, in district Bellary, is taken to be the work of Mushkara.[9] After Durvinīta, we hear of a powerful Gaṅga ruler Śrīpurusha (725-88) granting a village named Ponnali, in Nirgunda country[10] for the construction and upkeep of a Jaina temple (*Lōkatilaka*) which was caused by Kandachchi, beloved daughter of a Pallavādhirāja.

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A careful perusal of the early Gaṅga inscriptions clearly reveals that Jaina *āchāryas* commanded respect among the people and impressed greatly the ruling kings by dint of their learning and devotion to the faith. That is what we get from the early group of inscriptions starting from A.D. 600 to 800 at Chikkabeṭṭa[11] hill, Śravaṇabeḷgoḷa, the nerve centre of Digambara Jainism in Karnataka. The place was known as *Kaḷabappu* or hill of tombs (*Samādhiguṭṭa*), where Jaina ascetics performed severe vows, before any royal patronage or temple constructions were thought of. It was the task of these Jaina *āchāryas* and the *Saṅghas* or *gachchhas* to upkeep and propagate the creed. Another fact that comes to light from these inscriptions is that a king could build a *basaḍi* even outside his kingdom and also give a perpetual grant of a village in his territory to an *āchārya* for maintenance.

Digambara Jainism rose to the status of a state religion[12] from the times of Sivamāra II (788-812) who embraced Jainism. He was a disciple of *Toraṇāchārya*, and caused the *bāsaḍi* (Chandraprabhā)[13] on the smaller Chandragiri at Śravaṇabeḷgoḷa, a Jaina *bastī* at Kittur,[14] a Koil *basaḍi*[15] at Hebbaleguppe, both in district Mysore, and also far away at Kummaḍavāḍa, in district Belgaum, a place outside his political sphere. His son Mārasimha (791), gave a village grant and raised a Jaina Temple at Maṇṇe,[16] district Bangalore. Pious Jaina *āchāryas* like Jina-sēnāchārya I and II, Vindhyanandī, Dēvanandī, Mahāvīrāchārya and a host of others lived in Gaṅga court. The Rāshṭrakūṭa kings Gōvinda III and Nṛipatunga became disciples of Toraṇāchārya.

It appears, therefore, that early Jainism in ancient Gaṅgavāḍi territory laid its firm roots due to the efforts of these ascetics, and the early Gaṅga kings till the time of Śivamāra were merely trying to respect this tradition.[17] Of the architectural and sculptural relics practically nothing could be described, in respect of this early phase. While the earliest extant examples at Śravaṇabeḷgoḷa could be assigned to the beginning decades of 9th century,[18] the *basaḍis* at Kambadahaḷḷi complex came to being between 9th and 10th century A.D.[19]

II. *Tippuru : Its Locale :*

This remote village is at a distance of 23 km south east via Kulgere in Chikkarasa Hobli of Maddur taluk, district Mandya. The earliest epigraphical reference[20] to the village is found in the Ganjam (Śrīrangapaṭṭna taluk) copper plates (A.D. 800) of the time of Prince Mārasinga Ereyappa son of Śivamāra II (788-95). The charter invocates *Jitaṁ bhagavatā*, proclaiming the faith of the ruling king, and records the gift of the village "Tippūru" as a *brahmadēya* to Ponnadi, the chief of Arppole. Another inscribed record (*vardhamāna-jinēndrasya Śāsanāya*) dated in Śaka 838 (916-17) of the time of Nītimārga Permānaḍi[21] refers to the construction of a *basaḍi*, on the *Kanakagiri tīrtha* by one Manalēyara in the presence of the king and records the gift of all the incomes of the village "Tippeyūr" to one Kanasēnabhaṭāra. The inscription, in fourteen lines, sculptured with elephant and other royal insignia on the top is found on a well dressed granite slab set up closer to the tank bund at Kulgere village, just 3-1/2 km south of Tippuru.

During the Hoysaḷa period the Jaina establishment at this place enjoyed greater patronage and recognition. A stone inscription lying on the hillock records the grant of village Tippūru by a general named Gaṅgarāja, during the time of Hoysaḷa king Vishṇuvardhana corresponding to 25th December A.D. 1117, to a Jaina teacher Mēghachandra Siddhāntadēva of *Mūlasaṅgha*, *Kāṇūrgaṇa* and *tintriṇika gachchha*.[22] Another inscription on the pedestal of the Jaina image lying near the pond at the *Jinaguḍḍa*" records its consecration[23] by Bālachandra-dēva, son of Kandarpadēva in memory of his preceptor and his wife Sonnādēvī. Kavi Kandarpa is described as *ubhaya-bhāshā-kavi-Chakravartī* and belonged to *Kāṇūrgaṇa* of Tippūru itself. It is also clear from another record that *kavi* Kandarapa was both father and revered teacher of Bālachandradēva. This stone inscription with the dynastic *lāñchanas* on top was found buried in a field. It is of the period of Hoysaḷa Vīraballāḷadēva II (A.D. 1220) and refers to the sons (name lost) of Bālachandradēva, the disciple of "*Tippūra Kandarppar*".[24]

II. *Rock cut and Structural Remains* (Fig. XVI)

Though not as extensive as at Vaḷḷimalai in the Toṇḍaimaṇḍalam (district North Arcot, Tamil Nadu), in the heart of Gaṅgavāḍi, impressive Jaina vestiges were found for the first time. They are, both rock cut and structural, located on the flattish granite hillock called *Kanakagiri*, north of the present village. Except relics of Jaina affiliation no others were found. The natural depression of the rocky slope was taken advantage of to cut a deep 'U' shaped trough. Its southern side opening was bounded with cut-stone masonry blocks to retain the rain water. Thus a *Koḷa* (or *beḷgoḷa*), was formed to serve the ritual needs of the Jainas frequenting here. A cut-in bed, originally perhaps a natural cavern, enlarged for the purpose, was located at the central apse of this pond, which is presently under water cover and therefore, inaccessible. In all fourteen Jaina *tīrthankaras* (Pl. XLV) standing perhaps a few seated, (particularly the last four from the extreme left), were found carved, in low relief, at the middle height of the scarp facing west. There is no order among these figures and some were left incomplete. The figure of Supārśvanātha

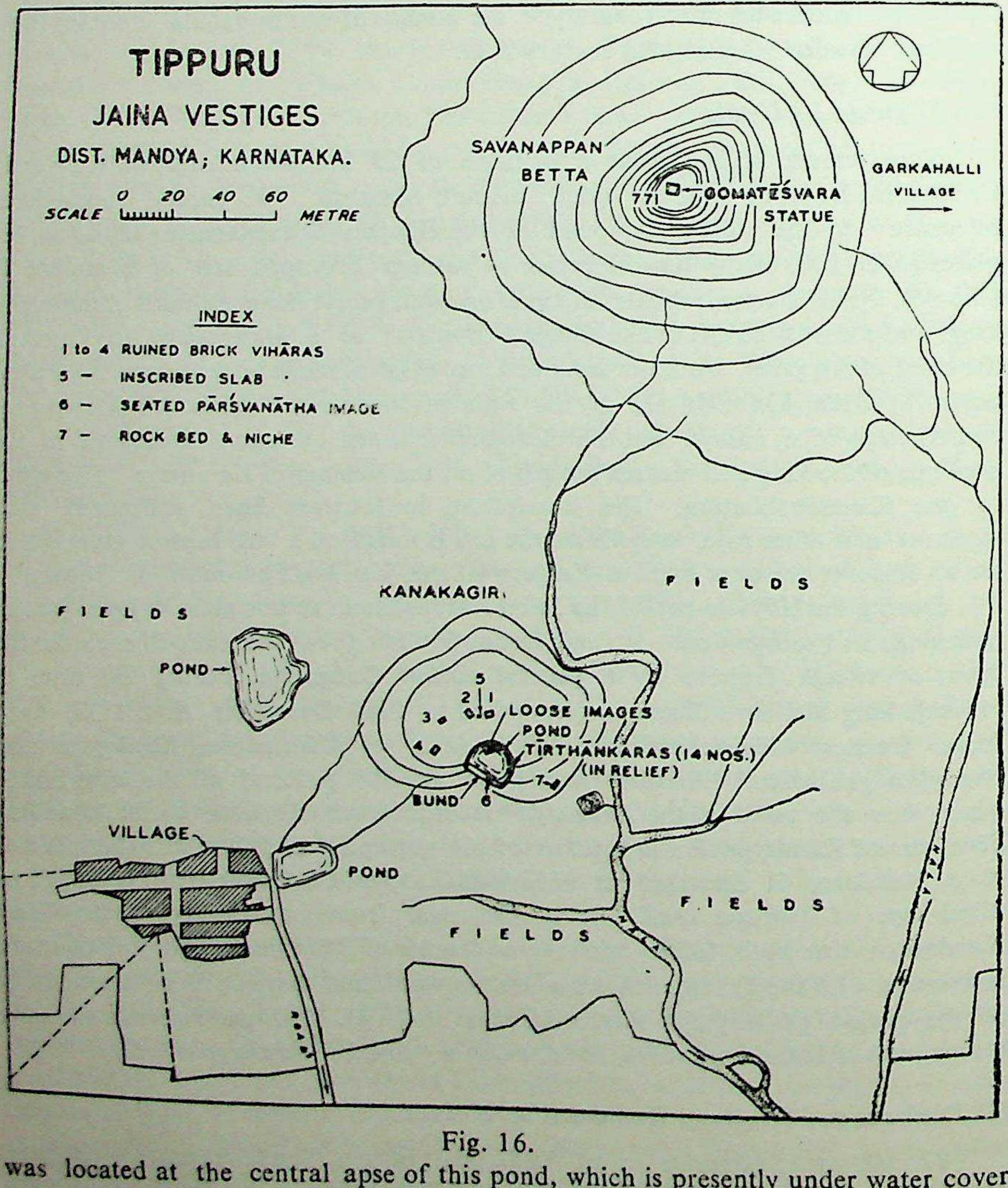
TIPPURU
JAINA VESTIGES
DIST. MANDYA; KARNATAKA.
0 20 40 60
SCALE
METRE
INDEX
1 to 4 RUINED BRICK VIHĀRAS
5 — INSCRIBED SLAB
6 — SEATED PĀRŚVANĀTHA IMAGE
7 — ROCK BED & NICHE
SAVANAPPAN BETTA
771
GOMATEŚVARA STATUE
GARKAHALLI VILLAGE
KANAKAGIRI
FIELDS
FIELDS
POND
5
2 1
3
4
LOOSE IMAGES
POND
TĪRTHANKARAS (14 NOS.) (IN RELIEF)
7
BUND
6
VILLAGE
POND
FIELDS
FIELDS
ROAD
NALA

Fig. 16.

(five hooded) standing over a lotus pedestal is shown fourth from the right, while he should be the seventh among the *tīrthankaras.* The four examples (No. 2 to 5) stand on moulded pedestals and possess *trichhatra* canopy, while on the others (1, 6 to 14), nothing is seen and the carvings too are incomplete. Due to exfoliation, the rock surface is damaged but at various spots, particulary at the eastern side, the wide boulder face affords good ground for carving. Small square or rectangular niches were attempted at a few places. One such linear niche, facing east (Pl. XLVI), has a central descent, in front of its cella. The expansive sides were meant for resting. Their is an attempt at carving, perhaps a Jina, at the back wall of the shrine. A seated Ādinātha flanked by chouri-bearers was also seen in a square bordered frame (Pl. XLVI). A conelike tuft is seen on the head but the figure suffered damage. Besides, these, small sockets for lamps could also be seen at some places.

Overhead of this pond and perched on the flattish hillock two sets of Jaina *vihāras* (in all four) built of brick were noticed. Each unit consisted of a front porch with a *sōpāna* entrance, flanked at the door by the *chourī*-bearers. Jinas were placed in the sanctuary proper which is a square chamber at the back of a pillared hall. Only ground plans have survived along with a few pillars of the *maṇḍpa* in position (Pl. XLVIII). The loose sculptures, all in granite were found displaced and some are broken too. Further, grounds plans of square rooms forming into an 'L' shaped *basaḍis* were also found. The brick size corresponds to 30″ × 7-2/1″ × 3″ and wedge-shaped ones of the size 23″ × 14-1/2″ × 17-1/2″.

Several loose sculptures, broken pillars and inscribed stones were found amongst the ruins. Among these a seated Supārśvanātha in *dhyāna* with a five-hooded snake protecting the head, appears to be the earliest (Pl. IL). The coils and the hood are more real than conventional. Shown in deep meditation, the right palm in the left, the image appears to have been originally placed on a lion throne within the sanctuary and flanked by *chourī* bearers. The youthful sturdy body, wide-eye lashes, hairdo like the eye-peal of a custurd apple, make the example a fine product of Gaṅgā art. Inside the pond and partly covered by the water, two good specimens (Pl. L) of standing Pārśvanāthas have been noted. The first example out of soft dull grey steatite or slate has a *trichatrāvaḷī*, a plain auerole and a highly ornamented *makaratōraṇa* elaborately looped, pendented and supported on *Kuḍyastaṁbhas*, clearly shows the conventional Hoysaḷa style. The second one, out of granite stone, has an elegantly designed simple semi-circular *prabhā* with lotus and lilly flower flank in relief and a similarly decorated *trichhatravaḷī* over-head. The figure resembles the seated Supārśvanātha and alike has wide fish-eyes and serene facial expression. Their original placement might be in the brick sanctuaries above the hill.[25] Several other broken or defaced Jina figures, *Chourī* bearers and inscribed slabs were found on this hill. The two figures (Pl.LI and LII) of male *chourī* bearers in trap rock, originally pertaining to Tippūru, are kept now at the frontage of a local Īsvara temple near the tank bund at the Kulgere village. As we have seen above Kulgere is noted for its inscribed slab of the time of Nītimārga which refers to the *Basaḍi* of Tippūru. The *Chourī*-bearers display refined workmanship.

The receding forehead, bulbous cheeks, the *Kaṇṭhābharaṇas*, the *Karaṇḍamakuṭa* crown, *Kēyūras* and *Kaṅkaṇas*, the buckle-clasped *mukuṭa upavīta*, the *mēkhalā* waist bands with pretty knot, the lotus petal lips, the natural manner of the fly-whisks revealed distnict Gaṅga-Nōlamba characteristics datable to early 9th century A.D. The part below the thigh region is left rough. It is very likely that their two *chourī*-bearears were originally flanking the seated Supārśvanātha image described above within a shrine chamber at the *bāsaḍi* of Kanakagiritīrtha. The conspicuous absence of *yakshiṇīs* or other female deities here is noteworthy and the *saṅgha* of this place might perhaps belong to an earlier orthodox, *digaṁbara* tradition which eschewed female representations.

The rock cut vestiges, the pond, the Supārśvanātha images, the standing one (No. 2) and the seated, the Kulgere *Chourī*-bearers, should be assigned to an earlier date, that is, between the last quarter of eighth and first quarter of ninth century A.D. and inscriptional evidence corroborates these architectural and sculptural vestiges. In fact the construction of a *basaḍi* in the presence of Nītimārga Permānaḍi further confirms that atleast one of the brick shrines above, might belong to his time (906-34). The Hoysaḷa record speaks of the reconstruction and elaboration of the brick *vihāras*, set up of a Jina image, the standing Pārśvanātha (No. 1) within the pond, etc. It is exceedingly interesting to note that owing to the dominance of Jainism and association of great scholars and saints the village got such suffixes as *Kavīkandarpa Tippeyūr*[26] (Hoysaḷa) and *Bastīya Tippūru*[27] etc. (Vijayanagara).

Further on a higher hill northwards of Tippūr village, known by the name *Sāvaṇappanbeṭṭa*, a Gōmaṭēśvara was installed on its top during the later Hoysaḷa times. The figure (Pl. LIII) nearly 2.20 metres high is carved boldly, in relief, over a banded granite stone with the simple *prabhā*, the youthful face, picked up eyebrows and the flower creeper entwining the legs and hands, as in case of Gōmaṭēśvara image at *Gōmaṭagirī.*[28] An early feature absent in later examples is the female attendants (9) holding the creeper of either side.[29] Such installations are perhaps a sequel to the famous Gaṅga Gōmaṭēśvara Colossus of Śravaṇabeḷgoḷa.

The above discoveries conclusively prove that the heart of Gaṅgavāḍi has Jain rock-architecture.[30] The tradition of building brick *basaḍis* continued during the times of Gaṅga rulers Mārasimha Ereyappa (788-95) and Nītimārga II Permāṇḍi (916-17). In particular the rock cut workings at Tippūru, though on a meagre scale, appeared a few decades earlier to Vaḷḷimalai.

The brick vestiges purely, of Jaina order, were first of their kind in the region, when the art of building elaborate stone temples was well established by the Gaṅga craftsman. These deserve to be systematically excavated but what is more urgent is to take all possible steps to protect them from the brick robbers and licenced stone quarrymen.

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2. B. Shaik Ali, *op. cit.*, pp. 41 and 323.
3. *EC.*, X, 72-73; pp. 172-73.
4. Nonamangala plates, *EC.*, X, p. 172, B. Shaik Ali, *op. cit.*, p. 56.
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12. Shaik Ali, *op. cit.*, p. 94.
13. *EC.*, II (1922), pp. 81, 199, Sb. 415.
14. Kittur, *MAR.*, 1937, pp. 7-9, Pl. II, see *EC.* (New) III.
15. *EC.* (New) III, Hg. 63.
16. *Ibid.*, IX (Old), Ml. 60, pp. 39-42.
17. R.B.P. Singh, *op. cit.*, pp. 20-21.
18. The earliest *basaḍi*, the Chandraprabhā, is of the time of Śivamāra II (810), *EC.*, II, p. 81.
19. K.R. Srinivasan, in *AJJA.*, 1975, p. 171; K.V. Soundara Rajan dates them to early 9th century A.D. *Indian Temple styles*, (New Delhi, 1972), pp. 145-46. While Sri M.A. Dhaky assigns to the third quarter of 10th century A.D. in *AJJA.*, p. 197.
20. *EC.*, VI (1977), pp. 397-98 and 632-34.
21. *Ibid.*, VII (1979), Mu. 100, (line 2), pp. 312, 621. B. Shaik Ali, assigns this record to A.D. 909 and also says that the grant was meant for enlarging the *basaḍi*. Both are incorrect, *op. cit.*, p. 118.
22. *EC.*, VII, No. 54, pp. 282-83 and and 603-04.
23. *Ibid.*, No. 53, pp. 281-82 and 603.
24. *Ibid.*, pp. 380-81 and 602-03.
25. Or could it be that these were fixed in the *Sarōvara* itself to commemorate the event when Dharaṇendra Yaksha assuming his immense shape unfolded his seven hoods over the Lord's head and Padmāvatī fixed the lotus below his feet.
26. Hoysaḷa record of Vīraballāḷa's time (A.D. 1220); *EC.*, VII (1979), pp. 280-81 and 620.
27. *E.C.*, VII (1979), Mu. 51, pp. 280, 602; This is on a *virāgal*, refers to one *oḍeya* of this village in characters of 14-15th century A.D.

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28. *MAR.*, 1947-56 (Mysore 1964), p. 40, Pl. XXXII.
29. A. Ghosh (ed.), 1974, *Jaina Art and Architecture*, I, Pl. 118-B, Ellora Cave-32 Gomaṭeśvara.
30. This is undoubtedly a continuation of the early Chālukya (Bādāmī) and Rāshṭrakūṭa (Ellora cave Nos. 30-34) traditions. See A. Ghosh (ed.), *op. cit.*, pp. 186-94. But K.R. Srinivasan held that "one is struck by the total absence of this rock-architecture effort in the whole of the Mysore country and Kongu area, that formed Gaṅgavāḍi". We do not also subscribe to his view that the two unfinished rock-cut ventures at Melkoṭe are of Jaina extraction and by the Gaṅgas. *AJAA.*, p. 163.

35

THE IMAGES OF NĀGA 'MUCHILINDA' AND HIS CONSORT AT VILLAGE GULGĀON, DISTRICT RĀISEN (M.P.)

A.P. SAGAR*

Gulgāon a village situated (Lat. 23° 29′ N and Long. 77°. 41′ E) on the other side of a small hill at a distance of about 5 km to the north-west of the village Sāñchī in District Rāisen and about 50 km to the north of Bhopāl, is 12 km to the south of Vidishā in Madhya Pradesh. All these places are connected by train on Delhi-Madras branch of Central Railway. One can reach the village Gulgāon through a jeepable road from Sāñchī.

At this village the sculptures of *Nāga* and *Nāginī* were noticed by the author in 1872-73[1] Both the figures are in human form each standing independently with snake hoods covering their shoulders and heads with back made up coils, and are placed on the bank of a Tank. This reminds the type which is foreshadowed in Mohenjodaro sealings[2] wherein immediately behind kneeling human figures, rearing serpents are shown, probably indicating that the worshippers of the seated deity are *nāgas.* This *nāga* figure of Gulgāon is having the snake canopy consisted of eleven hoods and the *nāginī* possessed with a shadow of seven hooded canopy. On the ventral portion of zoomorphic form of both the images, the hoods are demarcated by slightly oblique curvilinears lines in the canopy which appear to have merged with single form of snake body near and behind the waist of the human form attached to the zoomorphic form. The demarcated portions of each hood in the canopy are bearing horizontal lines merging with the same type of lines in the reptilian lower singular coiled form. This shows the nature of the skin. Out of eleven hoods of the male figure, only four hoods have survived and three are partly broken. The remaining set of four hoods has been completely chopped off. In the canopy of the female figure four hoods are intact, one is hidden by rosary, and the other two are completely chopped off. Both the images are carved of greyish-white sand stone.

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Nāga (2 m × 0.91 m) (Fig. LVII)

In the personified form of *Nāga*, the head is dressed by hair altogether twisted, coiled and knotted in the form of a turban. The end of the hair lock is hanging on its front. It can also be presumed in view of the alternative arrangement of the rows of beads and the hands of curvilinear lines that the turban as depicted,

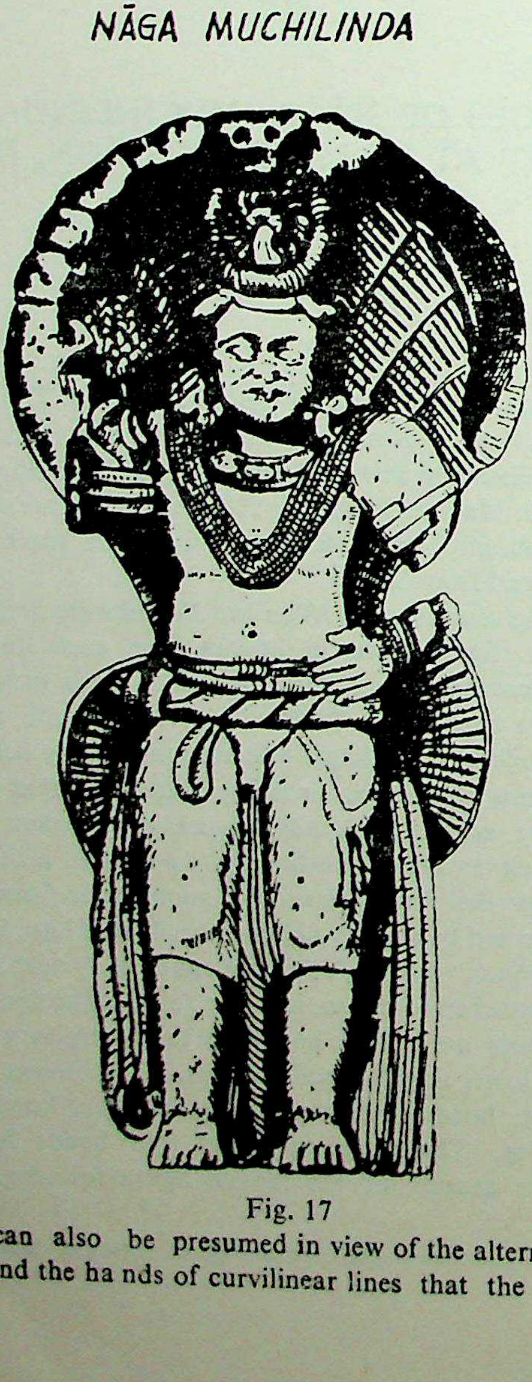

Fig. 17

is made of jewelled cloth. His body is short and robust. The face is almost round and mutilated, eyes are visible, nose and lips broken. Probably the image was having moustaches, heavy ear pendants, a small necklace fitted with three *NĀGMAṆĪS* (most precious beads) on neck and a garland of precious beads on chest. The left hand is on the waist, the fore and upper arms are broken. In his right uplifted hand is roasary. On the wrists the plain bangles are present, an ornament of gold is on the left arm. The image is depicted as wearing *dhoti* tied with a belt and scarf round the waist. The ends of the scarf fall on either side of the round.

Nāgini (1.22 m × 0.91 m) (Fig. XVIII)

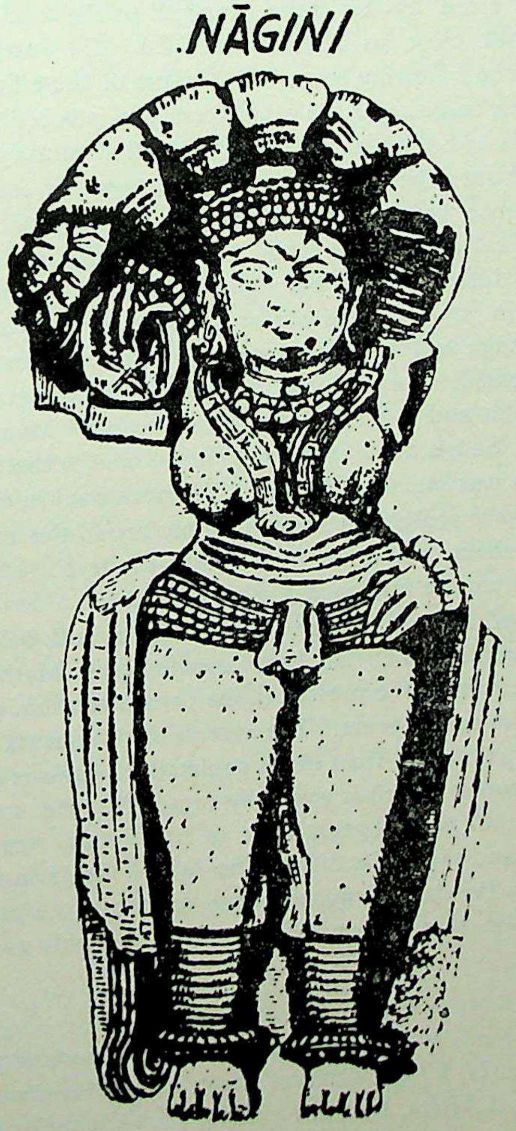

Fig. 18

In the personified form of *Nāgini* attached to its zoomorphic form; her left hand is on the hip. The fore and upper arm is broken and is missing. She wears *dhoti* fastened with a beaded gridle round the hips, scarf and heavy anklets. The ends of the scarf fall on either side to the round. She is putting on beaded belt of precious stone on her dressed hair of the head, heavy ear-pendants. There are two necklaces and a *mālā* of precious pendants and beads. Her breasts are round.

Date

The sculptures described above are assignable to Circa 2nd century A.D. This date has also been given by Sir John Marshall to the similar type of sculptures found from *Nagori* hill close to Sāñchī hill. But still further confirmation is required in view of the following reasons. The art of these figures appear to have been borrowed in some respects or the other from the preceeding arts like Śuṅga and Mauryan and is a by product of both in the 2nd century A.D. *i.e.*, Kushāṇa period. It is an all out negation of complete Mauryan or complete Śuṅga. Yet, it has some inheritance from both, strangely enough, the arts of the three dynasties, chronologically so close and geographically so contiguous to the earlier two though differs from each other but still maintain their germs in the later, in form, in style and in choice of theme. Mauryan art is symbolical and monumental, Śuṅga art is narrative and representational. Mauryan art is courtly and sophisticated, conventional and fully three dimensional. Śuṅga art is shy, modest and popular and is worked out in low reliefs. Mauryan art is international in significance. Śuṅga art is indigenous and fixes for the first time in stone a traditional art which was practiced in the two dimensional in very low relief wood carvings.[3] As the present sculptures are completely round the narrative they seem to have borrowed the theme and style from both Mauryan and Śuṅga arts; the physical features maintain the influence of Kushāṇa art.

The same type of *Nāga* sculpture completely round, belonging to Mauryan period Circa 2nd-3rd century B.C. has been reported from Mathurā by N.P. Joshi in his Book[4] but differs from the present in the ornamentation, quality of carving, etc. It is based on the same theme. The system of ornamentation in the present sculptures are more advanced than those depicted on various other sculptures of Śuṅga period. The *uttarīya* which is generally present in the sculptures of Śuṅga period, is absent in the present sculptures of *Nagā* and *Naginī*. Also knots of the scarf and belts around the waist differ; The fall of the garland also differs from the Śuṇga style. Thus the date assigned here to these sculptures and to such sculptures given by John Marshall as 2nd century A.D. holds good.

Identification

The *nāga* (serpent) cult is very ancient, prevailed in several parts of the world like Syria, Mesopotamia, Egypt, Greece, Crete, Italy, Slav countries, Sweden and certain parts of Asia and Africa. In a pre-historic rock shelter at Bhopal, a painting of zoomorphic form of a *nāga* has also been noticed. In other shelters such depiction are made at Neori group at Bhopal. The snake has always been the object of fear and wonder. Death and rebirths are symbolised by the snake as this creature appears to rejuvenate itself periodically. So far as the place of snake in the minds of the followers of different religions of India is concerned, it is very high. Serpent worship in India dates from pre-vedic times, was widespread and deeply influenced the life and faith of the people. The preponderence of the *Nagā* cult is well reflected in Jain, Buddhist and Hindu literature. With the ascendency of these religions, the *nāgas* were relegated to a secondary position as *Vyantara dēvatas*, they became attendants and devotees of Buddha. Even gospellers say "when the Buddha was born, two *nāgas*, *Nanda* and *Upōnanda*, poured water from the sky, one sending out warm and the other cold stream for his ritual bath. When the great storm and rain burst over Gautama while he sat under the *Bodhi* tree in contemplation of Muchilinda, the great serpent, twined himself around the body of the blessed one and spread his great hoods like a colossal umbrella and thus completely protected him from the fury of the elements which lasted for seven days".[5] "Nāga Etapttra eagerly awaited the appearance of the Buddha in the world".[6] Thus Buddhist religion appears to have formed an alliance with popular cult of *Nāga* of the soil.

According to Hindu religion "both *Śēsha* and *Vāsukī* have been mentioned side by side. *Vāsukī* evidently being considered as the first amongst the snakes and Śésha as the chief of the *Nāgas*".[7] Vogel has stated in "Indian serpent lore" that Amarakōśa gives both Śesha-Ananta and Vāsukī as the name of the *sarparāja*. Śēsha is specially known as the bearer the earth and is also associated with boar incarnation of Vishṇu. According to the Jain religion snake Dharaṇēndra was very powerful who raised his hoods over Pārśvanātha shielding him from the storm.

The multi hoods of the *nāga* makes it mythical; the number of hoods shows the power of the *nāga*. In an *Anantaśayana* image at Kathmandu, the number of hoods of Śēsha-Ananta is eleven, so is the Śēsha of Varaha image at Udayagiri caves at Vidisha (M.P.). Hence the images of *Nāga* and *Nāginī* which are existing at village Gulgaon, a site near the famous remains of Sāñchī relating to Buddhism are self proved to have been related to Buddhist cult and not to Vaishṇava or Jain. Thus the nāgarāja of Gulgāon is Muchilinda Nāgarāja and none else.

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2. Marshall, *Mohenjodaro and the Indus Civilization*, 1, p. 68, III (Pls. CXVIII, 11 and CXVI 29).

3. Niharanjan Ray, '*The Art of Barhut*' The Times of India Annual, 1970, p. 51.

4. N.P. Joshi, *Iconography of Balarāma* (Abhinav Publications, New Delhi) 1979, p. 18.

5. K. Bharata Iyer, '*The Naga in Art and Lore*', The Times of India Annual, 1970, pp. 77 and 80 as referred in.
6. *Lalitavistara* (Foucaux), i pp. 78 and 85 *Buddhacharita*, i, 27, 35 and 38 and Hardly, *Manual of Buddhism*, p. 182.
7. *Bhagavadgita*, X, 28-29.

36

LAKSHMINĀRĀYANA TEMPLE AT MUḌIGOṆḌA

M.S. Krishna Murthy*

Muḍigoṇḍa is a small village, about 5 Kms. from Koḷḷēgāl in Mysore District. It was flourishing town and also an important trade centre from the beginning of 9th century to the end of 14th century A.D. as evidenced by a number of inscriptions.[1] The expansion of Chōḷa empire into south-eastern Karnataka, was perhaps responsible, for the establishment of a new township of Muḍigoṇḍa, named after one of the titles of Rājēndra Chōḷa I (A.D. 1012-44). Inscriptions refer to this town by various names like Muḍikoṇḍachōlapura, Muḍikoṇḍam, Muḍikoṇḍachōla paṭṭaṇam, Dēśipaṭṭaṇam, Dēśiuyyakoṇḍachōḷapaṭṭaṇam, etc.[2]

The Lakshmīnārāyaṇaswamy temple situated in the middle of the village there is a good example of Middle Chōḷa art. The exact date of construction of this temple is not known for certain. However, the earliest inscription that refers to the existence of this temple is dated A.D. 1189 engraved on the plinth of the temple.[3]

The Lakshminārāyaṇa temple is a granite structure built facing east. Its plan consists of a *garbha-gṛiha* (5'×5'), a *sukhanāsi* (5'×6'), a *navaraṅga* (15'× 15') another *maṇḍapa* and a *mukha-maṇḍapa* all arranged axially. An entrance gate in a ruined condition, and a small cella with a porch on the south western side of the temple, dedicated to goddess Lakshmī, have also been built. Of these, only the *garbhagṛiha*, *sukhanāsi* and the *navaraṅga* of the temple form the original structure while all other parts are later additions.

The temple is built on a neatly moulded *adhishṭhāna*, containing an exceptionally thin *upāna*, a thick *jagati*, a three faceted *kumuda*, a *kaṇṭha*, and a *prati* represented by a thick brimmed moulding. The arrangement of the basal mouldings in this order reminds us of the *adhishṭhāṇa* of a similar order in the Kōeāramma temple at Kōlār, a Chōḷa structure which is not far removed in date from this structure. On the northern side of the *adhishṭhāna* of the *vimāna* is a stone drain or *vārimāna*, having a *kīrtimukha* from the mouth of which comes out an octagonal shaft with a grooved drain.

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The *bhitti* of the temple is conspicuously simple. Not too closely spaced pilasters and sparcely found *dēvakōshṭhas* under a simple architectural frame work constitute the main theme of decoration. Each pilaster is carved with a thin narrow shaft having vase-like top, a cushion capital and a *palagai* abacus all neatly and sharply cut. The corbels with chamfered bottom and the architrave above devoid of any ornamentation.

The *dēvakōshṭhas* or niches that are carved, one on each of the three open sides of the *garbhagṛiha* wall, and one on each of the side walls of the *navaraṅga*, are without sculptures. But they are quite narrow and tall, flanked by pilasters and covered by a canopy with a semi-circular, unfinished top. The bottom of the architrave of the niches has a hanging drop below. Another interesting aspect of the decorative elements of the wall surface of this temple is the single small pilaster supporting a sort of an architectural pattern, the entire thing devised on the principle of a *kōshṭha-pañjara,* most commonly found in the Chōḷa temples. Instead of an ornamental pavilion supported by a pilaster, as in the case of *kōshṭhapañjara*, an abstract architectural form has been devised. This also possesses a semicircular unfinished top with a central ring carved on its front. Each of the side walls of the *sukḥanāsi* contains one such pilaster with a decorative top.

The *kapōta* above the wall is very neatly moulded with unifinished *kūḍus* at regular interval. The central portion of each of the *kūḍus* has a plain surface with a linear circle cerved in it and their top portion is plain without a *kīrtimukha*.

There exists no stone *vimāna* to the temple. The *vimāna* that exists at present is of brick and mortar and neatly plastered all-round. The unfinished nature of the carvings of the wall would, however, lead us to doubt whether a *vimāna* to the temple was ever constructed at all.

The interior of the temple, particularly the *navaraṅga* presents a true picture of the interior of an originial Chōḷa temple. Four freestanding pillars are kept to support the roof. Each pillar has a carved pedestal, a shaft which has a cubical base and a cylindrical saft, a wheel moulding or a cushion capital, and a broad *palagai* abacus (2-1/2'×2-1/2'). The ceiling of the navaraṅga has nine coffers and all of them contain a *padma* carved in high relief in the centre. The *sukhanāsi* and *garbhagṛiha* have no architectural value of any significance. While the latter has a ceiling designed like a lantern-roof the former has one that is flat, with a relieve *padma* carved in the centre. The door ways of both the *navaraṅga* and the *sukhanāsi* are alike. Each has a simple framework of pilasters supporting a lintel.

As has been stated earlier many additions have been made to the temple of which the ruined eastern gateway is noteworthy. Several granite pillars carved in the Vijayanagar style are lying half buried under debris. These pillars are attractive for their exquisite carvings on their differently moulded shafts.

The temple has a few sculptures of Chōḷa and post-Chōḷa periods. The presiding deity of the temple is Nārāyaṇa housed in the *garbhagṛiha* of the main.

temple. It is a nice piece of sculpture illustrating the workmanship of the Chōḷa artists. The image (43″×18′) is standing on a pedestal. It has four hands. The upper right hand holds *chakra* and the upper left hand holds *śaṅkha*. The lower left hand holds gada and the lower right hand is in *abhaya mudra*. The person of Narāyaṇa is embellished with all the traditional ornaments like a tall *kirīṭa* necklace, *yaiñōpavīta*, *udarabandha*, *pādasara* etc. Though carved in hard granite, the touch of class of the Chōḷa artists is quite discernible in the delicacy of carving.

There are a few other sculptures kept in the *navaraṅga* of the temple like those of Viśvaksena, Vēṇugōpāla and Nammāḷvār. All of these appear to be of post-Chōḷa period. The sculpture of Vēṇugōpāla is an unfinished one, while the sculptures of Viśvakshēna and Nammāḷvar are noteworthy as they are neatly and delicately carved.

The temple also has a separate shrine for Lakshmī, on its south-western side. This is an exception to the rule that the shrine of the consort deity should always be placed towards the north-western side of the temple of the main deity. This shrine has a sculpture of goddesss Lakshmī seated on a couch (pl. LXI). Its stylistic form and other traits indicate that it is a sculpture of the Vijayanagara school of art.

The goddess has four hands. The upper two hands hold lotuses, while the two lower hands are disposed in *abhaya* and *varada mudras*. Traditional ornaments are seen on the body of the Goddess who is sitting in *padmāsana*. There is also a small halo with a *kīrtimukha* in the centre.

To conclude it may be said here that this temple of Lakshminārāyaṇa is one of the beautiful edifices of the Chōḷa artists standing as a mute testimony to the expansion of Chōḷa power over Karnataka. Though the exact date of construction of this temple is not known, it is certain that this temple was built during the dominating period of Chōḷa rule and Culture as each and every part of the original temple is full of life and feelings of the Chōḷa builders who conceived such magnificent temples as Brihadīśvara at Tanjore and Gangaikoṇḍachōḷa-puram.

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2. The last two names are due to the fact that it was a famous trade centre where many merchant guilds existed. The word *deśi* here stands for the trade guild. (See Dr. K.V. Ramesh, Studies in Indian place names, Vol. II, p. 23, Mysore, 1981).
3. It states that during the rule of Hoysaḷa Vīra-Ballāḷa Deva (on 24th April, A.D. 1189) a grant was made to Dēśipperumāḷ in the Nārāyaṇa temple at Muḍigoṇḍaśōḷapuram. Another inscription at the same place (Kollegal 96) is an incomplate one and mentions the name of the Hoysaḷa king Vishṇuvardhana (A.D. 1110-52). However, this is not useful in anyway to assertain the date of construction of this temple.

37

SABARI TEMPLE AT SUREBAN : A RARE ŚIKHARA

S.V.P. Halakatti*

The Śabari temple is situated in the Suravvanakoḷḷa, 4 kms away from Sureban (Ramdurg Taluk, Belgaum District). It consists of a spacious *mukhamaṇḍapa*, *sabhāmaṇḍapa*, *antarāḷa* and a *Garbhagṛiha*. The *adhishṭhāna* of the temple is of *padmabandha* type. The outer walls of *sabhāmaṇḍapa* and *garbhagṛiha* are relieved into narrow pilasters.

Mukhamaṇḍapa is more spacious than the *sabhāmaṇḍapa*. The pillars of the *mukhamaṇḍapa* are highly developed. It appears that *mukhamaṇḍapa* was a later addition. It was probably added during Kalyāṇi Chālukya period. At the same time changes were made in the *garbhagṛiha* also, the details of which are discussed elsewhere.

The door frame of the *sabhāmaṇḍapa* is plain. The *sabhāmaṇḍapa* is square. There is a small vestibule leading to the *garbhagṛiha*. The *Garbhagṛiha* is a small square chamber. The door frame of the *garbhagṛiha* is also simple, with two female figures shown on either side of the door jamb. Inside the *garbhagṛiha*, there are two *pīṭhas*. As pointed out earlier while the *mukhamaṇḍapa* was being added to the *sabhāmaṇḍapa* the changes were made in the *garbhagṛiha* also. The original *pīṭha* of red sand stone now abutts the back wall of the *garbhagṛiha*. In front of it is another *pīṭha*. From the mouldings of the *pīṭha* it can be dated to 12th century A.D. A beautiful Durga image in Kalyāṇi Chālukya style is on this replaced *pīṭha*. The Durgā image is now called Śabari.

The *śikhara* of the śabari temple is rather unusual in Karnataka. The *śikhara* rising over the *garbhagṛiha* consists of *ēkatāla-vimāna*. *Ekatāla-vimāna* is crowned by the *sālaśikhara*. *Sālaśikhara* has *adhivimānas* in its lateral niches. The *kalaśa* is, of course of recent period.

An unusual feature is that *sālaśikhara* is on square *garbhagṛiha*. The traditional *sālaśikhara* is usually oblong in plan. In building this *śikhara*, the *sālaśikhara* tradition of Tamilnadu seems to have been imitated. Since the Śabari temple belongs to late Rāshṭrakūṭa period and also in view of the fact that Rāshṭrakūṭas and Chōḷas had political relations, although hostile, the ultimate source of inspiration for building *sālaśikhara* temple at Sureban, might have come from Tamilnadu, where such a tradition prevails. As noted above, the temple can be dated to late Rāshṭrakūṭa period. As far as our knowledge goes, Śabari temple in Suravvanakoḷḷa is the only temple with *sālaśikhara* in Karnataka.

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38

TEMPLES AND SCULPTURES FROM BILICHODU

A. Sundara*

Bilichōḍu is a small village in Davanagere taluk, Chintradurga District. The village is important because it contains some interesting temples and unique Jaina sculptures. Of these a Jaina sculpture is very unusual and probably one of its kind noticed so far.

There are four temples locally known as Īśvara temple, Kaḍle Basavaṇṇa temple and Bommalinga temple group (two). The Īśvara t emple is of stylistically c. 9th A.D., and therefore is noteworthy though much of it has disappeared, as comparatively speaking structural temples of the Rāshṭrakūṭa period known in Karnataka, are few and far between. It, originally a *ēkakūṭāchala* facing east, was renovated and enlarged into a *trikūṭāchala* during c. 11th century A.D. Later in the post Vijayanagara period it was in a dilapidated condition. Externally it was therefore provided with buttress alround by constructing a circular rubble wall making it to look like a watch tower. Thus only the plinth part with distinctly bold mouldings on the frontal side is visible. The *mukhamaṇḍapa* is not extant. The plinth and the doorframe of the *sabhāmaṇḍapa* are of c. 9th A.D. The doorframe consists of a *simhavarī śākhā*, a bold pilaster and a *latāvarī śākhā*. The lintel is plain and has no prominent block at the centre for the *lalāṭabimba* but has a graceful bas-relief of Gajalakshmī. Interestingly enough, the *amṛita* that is being poured over Lakshmī's head from the *ghaṭas* held by the elephants with their proboscis, on the sides is also clearly indicated by the sharp flowing lines in the relief. The *kapōta* has finely carved row of *hamsās* underneath and two *chaitya kūḍūs* nearer the extremeties and a floral design at the centre.

The architrave running on the *kapōta* also has fine bas-relief of seated four armed Śiva with Pārvatī by the side and Nandi behind. In his upper hands are *paraśu* and *sarpa*. The style of the depiction and the attributes are typically Early Chalukyan late phase. On either side of Śiva-Pārvatī are three men including a *yōgi* in one group and *pustaka pīṭha* in the other. While the men are seated, the

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yōgi is in standing posture. The panel obviously represents a discourse by a sage to the devotees.

In the *sabhāmaṇḍapa* are two noteworthy sculptures, *Sūrya* and *Lakshmī-Nārāyaṇa*. The former is of the same period as that of the original temple. It is almost in round-relief with *prabhāvaḷī*. The conical jewelled *kirīṭamukuṭa*, *chakra-kuṇḍalaś*, necklace, *vakshabandha*, *yajñōpavīta*, *mēkhalā* with long tassels, the wrist bangles, the jingling anklets and the lotus buds in the hands are finely carved. Particularly noteworthy are : the absence of his heralders or associates : *Ushā* and *Pratyushā*, a *Daṇḍa* and *Piṅgaḷa* and the type of *prabhāvaḷī*. The latter is a semi-circular arch fashioned into twisted rope like design, supported by the pilasters. The apex of the *kirīṭamukuṭa* is a little above the *prabhāvaḷī*.

The other sculpture of c. 11th century A.D., is in late Chalukyan style and of the usual type. Nārāyaṇa is seated in *savyalalitāsana*, with *śankha*, *padma*, *gada* and *chakra* as his attributes. Lakshmī is seated in *vāmalalitāsana* on the left lap of Nārāyaṇa. His lower left hand encircles Lakshmī's waist. The *chakra* is therefore depicted as lying at the bottom right.

The other two temples of c. 11th century A.D., are of the usual style and type.

The Jaina sculpture

The most noteworthy, is a Jaina sculpture of c. 11th century A.D., located in the outskirts of the village in a modern grave yard. Obviously it is brought from some Jaina temple in the village and installed on a platform in the present place. It is about 70 cm high and 30 cm broad. It depicts a *Tīrthaṅkara* in *Khaḍgāsana*. On the sides are seated *Yaksha* and *Yakshi*. The unique feature of the sculpture is the representation of two entwined *Nāgas* like those in any other *Nāga* sculpture. In the single loop so formed by the *Nāgās*' bodies and between the hoods are blossomed lotus medallions. The *Tīrthaṅkara's* feet is in between the hoods just above the lotus and the *Yaksha* and *Yakshī* are respectively right on the top of the hoods. Apparently the sculpture has the combination of a *Tīrthaṅkara* and the *Nāgās* of the type of the Hindu sculptural representation. The combination looks strange.

A careful perusal of the *Purāṇas* pertaining to the Tīrthaṅkaras provides the meaning of the combination. In *Pārśvanātha Purāṇa*, it is narrated that Pārśvānātha born in Kāśi, though a prince, was uninterested in worldly life and inclined more towards the spiritual life. One day while he was roaming about on the bank of the river Gaṅgā, he saw some ascetics performing penance in front of a burning hearth. They were feeding the hearth with fire-wood. Pārsvanātha questioned them why they were harming the creatures. Being surprised at the question, but soon in a fit of anger too, they asked him to show the creatures that were said to have been harmed. Pārsvanātha took out a burning fire-wood from the hearth and split it with an axe. Within the burrow of the wood were found two serpents male and female already partially roasted struggling for life. Realising that they would not survive, Pārśvanātha exhorted the *mantra* of *Panchanamaskāra* (i.e. Reverence to

Arhantās, Siddhās, Āchāryās, Upādhyāyas and Sādhus) and left the place, with grief. Later while he was engrossed deeply in meditation in the forest of Āhichchhatra, a semi divine being Kamaṭha his former enemy, saw him and being overcome with bitter enemity, came out suddenly to torture him by throwing at him brick, stone and what not. But Pārśvanātha remained unmoved and unperturbed. Kamaṭha feeling frustrated at his futile attempt caused by his mysterious power downpour with thunder and lightening to flood him. In the meanwhile the two serpents which were shown the path of salvation at the time of their death, were born as Dharanēndra Yaksha and Padmāvatī Yakshi in *Pātālalōka.* No sooner they could know about the dangerous trouble inflicted on their *guru* than they rushed to the spot to save him. Padmāvatī placed him on her crown and Dharaṇēndra spread his hoods over his head. Just then Pārśvanātha was enlightened.

In the light of the above *Purāṇic* story the sculpture described, represents obviously Pārśvanātha with Dharaṇēndra *Yaksha* and Padmāvatī *Yakshī* and the two serpents beneath them in it, indicate the immediate past life of the *Yaksha* and *Yakshī.* The sculpture is thus unique in representing the Purāṇic episode.

Acknowledgements

While discussing about this sculpture with Dr. B.S. Kulkarni, Director, Kannada Research Institute, Karnatak University, Dharwad, he drew my attention to the Purāṇic episode narrated above which was helpful in identifying the sculpture fully.

39

JEWELLERY AND ORNAMENTS IN HOYSALA PERIOD–A SCULPTURAL STUDY

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The Hoysaḷa temples have elegantly carved male and female sculptures which have been studded which jewels and ornaments irrespective of their status in the society. Apparently the jewellery and ornaments used by the aristocracy and by the commoners appears alike but perhaps they differed in the material with which they were made. The conspicuous parts of the body where the ornaments fitted most eminently are the head, ear, neck, waist, hand and leg. To this list are added sometimes the junction of the thorax and the abdomen and the breasts. This order has been followed here while studying the different ornaments of the body sculptured on walls. The Hoysaḷa sculptors loved to carve this type of figures on the walls of temples. They bestowed great care in embellishing the figures with jewellery and ornaments.

1. *The Head*

Various types of head ornaments are noticed during Hoysaḷa period, as is evident from male and female stone sculptures. Three types of head ornaments may be classified in general. They are *mukuṭa*, *tiara* and *Jaṭāmukuṭa*. They are noticed in a number of male figures, and they occur mostly in the figures of the gods. It is interesting to note that they appear in Vaishṇava, Śaiva and Jaina sculptures. This shows that there was no distinction in the religion so far as the use of ornaments was concerned. A large number of Vaishṇavite sculptures have *Kirīṭamukuṭa* which is a conical cap made up of costly metals, and pearls surmounted by an ornamental top (Kēśava temple at Sōmanāthapur).[1] A large number of Śaivite sculptures have *Jaṭāmukuṭa* decorated with skulls and with band of pearls and the head-band (Brahmēśava temple at Kikkēri[2] and Channakēśava temple at Bēlur).[3] The *Karaṇḍamukuṭa* ornament which is simple in design and appearance is mostly seen in the minor deities which indicates the subordinate status. Besides

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these types we come across pyramidal shaped ones (Lakshmīnārāyaṇa Temple at Hosahoḷalu)[4], conical shaped (Lakshmīnārāyana temple at Nuggihaḷḷi,)[5] and flat shaped ones (Lakhmīnārāyaṇa temple at Hosahoḷalu,).[6] Majority of the female sculptures of Hoysaḷa period have been shown wearing head ornaments, which were used on the forehead as well as on the parting of the hair. They also reveal the use of tiara (Channakēśava temple at Bēlūr).[7] In the madanike sculptures head ornaments have been decorated with looped and flamboyant head ornament. In another sculpture we come across a pyramidal shaped head ornament.

2. *The Ear*

The male and female sculptures of the Hoysaḷa period reveal some new type as well as the continuation of some of the old types of ear ornaments. A large number of them have *Kamala Kuṇḍala* or lotus shaped ear ornaments and others have of *tāṭankachakra Kuṇḍal* or wheel shaped ear ornaments. Besides these we find many types of ear ornaments and some of these types have been named after their shape, design and metals, which are called *Makara-Kuṇḍala*, *maṇi-kuṇḍala*, *Karpa-kuṇḍala*, *Karpa-mudrā*, *Karṇa-bhūshaṇa patra-kuṇḍala*, *Sarpa-kuṇḍala* and *ratna-kuṇḍala*.[8] The representation of *Sarpa-kuṇḍala* is noticed generally in the ears of Śiva and Gaṇēśa (Channakēśava temple at Bēlūr, Gadādhara).[9] *Makara-Kuṇḍala* is evident from the Vaishṇavite sculptures (Kēśava temple at Sōmanātha-pur[10] and the Lakshmīdēvī temple at Doddagaddavaḷḷi).[11] *Maṇi-Kuṇḍala* was an ear-ring inset with jewels. (Channakēśava temple at Bēlūr).[12] *Kāñchana-kuṇḍala* was an ear ring of pure gold, (Channakēśava temple at Bēlūr).[13] The *patra-karṇika* as the name suggests is a leaf like ear-pendent. (Lakshmīnārāyaṇa temple at Nuggihaḷḷi).[14] The representations of various types of ear ornaments are also noticed in the female sculptures such as cup shaped with lotus or wheel design, concave, funnelshaped, circular ear-plaques overlaid by foliage-like devices etc. The fashion of wearing ear-ornaments by male and female persons was in vogue and was common during this period.

3. *The Neck*

The neck jewellery, and ornaments that adorn the male and female deities of the Hoysaḷa sculptures show more variety than that known to Kauṭilīya.[15] Kautilīya tells us that a necklace is made up of pearls of gradually decreasing size with one bigger pearl in the centre which is very simple and the same type of neck ornaments are noticed in the bracket figures at Channakēśava temple at Bēlūr, (Beauty and the scorption).[16] The other type known as *avaghaṭaka* in Kautilya's Artha-śāstra[17] which is defined as a necklace of pearls which are of uniform size (Ckennakēśava temple at Bēlūr Bracket figures, The Dance).[18]

The neck ornaments may be classified into three groups or types in general, namely (1) The dog-collared type or called by the term *kaṇṭhamāla* (The Lakshmidēvi temple at Doddagaddavaḷḷi),[19] (2) The flowing type which hangs over the chest called by the term *ruchaka* or *māla* (The Kappēchennigarāya temple at Bēlūr),[20]

(3) The long necklaces hanging down to the navel (Chennakēśava temple at Nāgalāpura).[21]

There are references to the various types of neck ornaments worn by men and women which are mentioned in the Nāṭyaśāstra.[22] They are *trivēṇi*, *muktāvaḷi*, *ratnamālikā*, *ratnāvaḷi*, *sūtra* and *hāra*. The fashion of wearing a set of necklaces close to the neck in three or four beaded strands are very common in Hoysaḷa sculptures (Chennakēśava temple at Bēḷūr,[23] (Mōhinī), Nākaṇṭhēśvara temple at Brahmasamudra[24] etc.).

4. *The Waist*

The sculptures of this period reveal various types of waist or Girdle ornaments. They reveal the girdles more as a part of dress then as separate ornaments. In the sculptures in some cases, we see the waist-band serving the purposes of a grip in holding the sword. A number of female sculptures are shown in various types of waist ornaments which are very new in their style and elegance. Some of them look simple and plain; some appear to be made of beads and some look like decorative objects inset with gems and pearls. We find elaborately looped waist or girdle ornaments in the bracket figures at Channakēśava temple at Bēlūr[25] and in male and female gods at Kēśava temple Sōmānāthapur.[26] Generally Śiva is represented by a looped girdle which is made up of skull bones (Channakēśava temple at Bēlūr).[27] The sculptures generally show the girdles of one, two, three, four, five and seven *strands*, as is evident from the sculptures (The Lakshmīdēvī temple at Doḍḍagadavaḷḷi).[28] Various types of girdles are referred to in the Nāṭyaśāstra[29] which are called *Kañchi mēkhalā*, *rasanā* and *kalāṇa*.

5. *The Hand*

These ornaments were used on the wrists, on the arms and in between the elbows and the wrists. The sculptures depict both males and females with armlets of different variety. But we find that females wear hand ornaments profusely. The females possibly considered it to be their exclusive right to wear bangles on their upper arm. The hand ornaments may be classified under three heads : (1) armlets (*Kēyūras*); (2) the fore arm-bangles or *Kaṅkaṇas*; and (3) the wrists wristlets. Generally on the sculptures of this period all these can be noticed in different varieties and in different types at Channakēśava temple at Bēlūr[30] and Kēśāva temple at Somanāthapur.[31] The *Kēyūras* worn by gods and goddesses of this period show considerable variety. A large number of finger rings have also been found.

6. *The leg :*

The variety of leg ornaments represented in the Hoysaḷa sculptures are varied in character. We find that both male and female gods and goddesses have been depicted with profuse ornaments of various types and designs. Various designs of anklets were used by women during this period. According to Nāṭyāśāstra[32] they are *pādapatra. nūpura, Kiṅkiṇi* and *pādakaṭaka* (Kēśava temple at Sōmanāthapur[33] and Channakēśava temple at Bēḷūr).[34] The anklet (*nūpura*) occurs in the sculptures frequently. The number of anklets worn on each leg ranges from one to many although the frequency of their depiction is more in favour of pairs. The *nūpuras* producing jingling sound adorned the anklets of women and were made of precious metals. The wearing of toering is common in female sculptures (Channakēśava temple at Bēḷūr[35], Beauty and the Mirror).

The ornaments of this period appear to be more refined and attractive than those of the earlier period. Men were as fond of personal decoration and ornamentation as women. The sculptures of this period are proof enough of their love for jewellery and ornamentation. It gives us an idea of the extent to which the craftsmanship of the goldsmith in making new designs in ornament making advanced during this period. They reflect the social conditions of the times and give us an idea of the manner in which men and women of this period adorned their personages.

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RĀMALIṄGĒŚVARA TEMPLE AT HUNGUND

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Early Western Chālukyan monuments in Karnataka and Andhra Pradesh have attracted the attention of some art historians in the last two decades. It is also significant to note that due to the efforts of some of these scholars some new Chālukyan monuments have come to light in the recent years. Though these monuments are not of large magnitude, one cannot dismiss their importance in the overall study of the development of Chālukyan art. These monuments are situated at Siddhanakoḷḷa[1], Benakanawari,[2] Sūḷebhāvi,[3] Sabbalahuṇasi,[4] and Kēlūr[5] not far from Aihoḷe, Nāgarāḷ,[6] near Mahākūṭa, B.N. Jālihāḷ,[7] Bāchinaguḍḍa[8] near Paṭṭadakal, Hosa Mahākuta,[9] Hungund,[10] and Iṭṭagi[11] all in Karnataka, Kadamara Kālava[12] and Panyam[13] in Andhra Pradesh.

Of the above monuments the Rāmaliṅgēśvara temple at Hungund was brought to our notice by Dr. S. Settar in 1974 in his article in Kannada, where the illustrations were in line-drawings done by Miss Doris Chatham of California. Hungund is a small town and headquarters of the taluka of the same name in Bijapur District of Karnataka, situated in 16° 4′N. and 76° 4′ E., about 29 miles from Bagalkot. This temple is referred to in the Gazetteer[14] of the Bombay Presidency, Bijapur, Vol. XXIII, 1884, p. 653. But there is no mention either of its date or of its style or other details.

As the temple has undergone repairs and renovation in recent years and as the whole structure is white-washed the outward appearance is unlike any early Chālukyan temple. Due to the white-wash the details of sculptures are also not distinct.

The temple at present consists of a *sambhāmaṇḍapa*, an *antarāla* and a *garbhagṛiha*, which is slightly at a lower level. Inside the *garbha-gṛiha* is a *liṅga*. The *maṇḍapa* has a couchant Nandī facing the *liṅga* shrine. The pillars are square-type with usual Chālukyan broad band with incomplete circle designs on each side, but without any embellishments. The pillar capitals are also plain. The door-frame of the *maṇḍapa* has the common Chālukyan type bust of Garuḍa holding the tail ends of the *Nāga* in each hand. At the bottom are seen *mithuna* figures. Below the Garuda are seen some flying figures in three groups. The *maṇḍapa* ceiling has a donatory inscription of A.D. 1074[15] which is much later than the original temple. Besides this, there are three carved ceiling slabs. As we enter the *maṇḍapa* first we come across the panel of Vṛishabhārūḍha Śiva. Next is *Garuḍārūḍha Vishṇu* and finally the *Naṭarāja*.

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*Prince of Wales Museum, Bombay.

Vṛishabhārūḍha Śiva panel :

Here four-armed Śiva is seated in *lalitāsana*, on Nandī holding a *vīṇā* in his front hands. In his raised rear hands he holds the *ḍamaru* in his right and the *triśūla* in his left hand respectively. Pārvatī is also seated on the Nandī on his left with her face turned towards Śiva. She holds a *padma* in her hand. On either side of them are the *gaṇas*. At the feet of Pārvatī is Kumāra riding on his peacock and the opposite end is Gaṇēśa. Similar *Vṛishabhārūḍha* Śiva panels are seen on the ceilings of Huchchimalliguḍi and Huchchappayya Maṭha[16] at Aihoḷe, Jambuliṅga temple at Bādāmi and at Nāganāth temple at Nāgrāḷ.[17] In the slabs at Rāmaliṅgēśvara and Huchchimalliguḍi, the Nandī is facing left whereas at Huchchappayya Maṭha, Nāganāth and Jambuliṅga, the Nandī is facing right. In Rāmaliṅgēśvara panel the composition is simple and there are no carved border panels as elsewhere.[18]

Garuḍārūḍha Vishṇu panel :

Here four-armed Vishṇu riding on Garuḍa holds *padma* and *śaṅkha* in his lower right and left hands and *chakra* and *gadā* in his raised right and left hands respectively. Vishṇu is surrounded by *ṛishis* and attendants giving offerings and homage to the deity. The kneeling Garuḍa with folded hands is looking up at his master. His wings are spread in a crescent form. This panel very much resembles a similar panel of *Garuḍārūḍha* Vishṇu from Temple No. 10[19] from the Gaḷaganātha group at Aihoḷe, now placed on the roof of this temple. In both the panels Vishṇu is holding his *āyudhas* and his hands in the same position. Only the faces of Garuḍa are facing different directions. The side figures here are arranged in two levels, whereas at Aihoḷe they are in three levels. Another similar panel is seen on the ceiling of Huchchimalliguḍi at Aihoḷe.

Naṭarāja panel :

Here eight-armed Śiva is dancing vigorously on the *apasmāra-purusha*. He holds in his right hands *akshamālā*, shield, *triśūla* and *khaḍga* and in his left hands, *kapāla*, *nāga* and *ḍamaru*. One left hand is stretched out. The couchant Nandī is seen at his back. On Siva's proper right at his feet is dancing Gaṇēśa and on his left is Kumāra riding on a peacock. Above Kumāra is seen another dancing figure. Śiva is shown in *tri-bhaṅga* posture.

The traces of some parts above the roof indicates that the temple had a superstructure above.

The pillar-types, the capital, Garuḍa holding the *Nāgas* on the doorframe, the composition and style of the carved ceiling slabs conclusively prove that this is an early Western Chālukyan temple. The style and other details of sculpture and architecture and its comparison with other Chālukyan monuments elsewhere suggest eighth century as the date for this Rāmaliṅgēśvara temple at Hungund.[20]

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MAHĀSADĀŚIVA IN HINDU ICONOGRAPHY

K. Krishna Murthy*

Mahāsadāśiva is one of the important aspects of Śiva. The philosophic aspect of Mahāsadāśiva is explained in *Vātulaśuddhāgama*. He being one of the aspects of Śiva (the *Pañcha Brahmas*),[1] it is based on the philosophy of the *Śuddha Śaiva* School of Śaivism.[2] He is conceived as having twenty five heads and fifty arms bearing as many objects in their hands. The twentyfive heads stand for the twentyfive *tattvas* of philiosophy.

Mānasāra lays down that Mahāsadāśiva should have twentyfive faces, seventyfive eyes and fifty arms. He should have *jaṭāmakuṭas* and *kuṇḍalas* besides a number of *sarpālaṅkāras*. His two hands should display *abhaya* and *varadā* poses.

> *Prasanna-pañcha-viṁśaka- sphuṭ-ānanaṁ Jaṭādharaṁ |*
> *Su-pañcha-Śapta-thīkshaṇaṁ Kapāla-kuṇḍal-ānkitaṁ ||*
> *Śat-ārdha-hasth-bhūshitaṁ Var-ābhayānyitaṁ sita- |*
> *Bhujaṅga-bhūshaṇam Paraṁ bhajē Mahāsadāṣivaṁ ||*

Again, the *Rūpamaṇḍana* mentions a multi-faced Sadāśiva. Despite the text does not describe the number of heads of such a deity from the number of arms which are given as sixteen, it appears that the icons referred to here belongs to Mahāsadāśiva variety. His right hands hold a *ḍamaru*, a *sudarśana*, a *sarpa*, a *śūla*, an *aṅkuśa*, a *kuṁbha*, a *kaumudī* and a *jayamālā*, while the left carry a *ghaṇṭa*, a *kapāla*, a *khaṭvāṅga-tarjanī*, *a kuṇḍikā*, a *dhanusha*, a *paraśu* and a *paṭṭīśa*.

> *Bahurūpō dadhatē dakshē ḍamarum cha sudarśanaṁ |*
> *Sarpaṁ-śūl-āṅkusam-kumbhaṁ-kaumudīṁ-jayamālikāṁ ||*
> *Ghaṇṭā-kapāla-khaṭvāṅga-tarjanī-kuṇḍikaṁ-dhanuḥ |*
> *Paraśuṁ paṭṭīśam ch-ēti vām-ōrdhva-dika-kramēṇa hi ||*

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Similary, the Skanda Purāṇa mentions a seated form of Śiva known as Mahā-kailāsa or Mahā Sadāśiva which is represented with twenty five faces and fifty hands, wears a garland of skulls and is clothed in a tiger's skin.[3]

Images of Mahā Sadāśiva or Mahākailāsa, in esoteric manner, are quite rare in Hindu iconography. Interestingly, an earliest known sculptural representation of Mahāsadāśiva of Eastern Chālukyan period occurs from Pedda Vēṅgi in West Godavari District in Andhara Pradesh.[4] The sculpture in black granite is that of Mahāsadāśiva standing in *sambhaṅga* posture. He is ten headed (arranged in one tier), five heads on each side, in a group, represent five aspects of Śiva[5] (Vāmadeva, Sadyōjāta, Aghōra, Tatpurusha and Īśāna) substituting on the whole, twenty five heads corresponding to the textual description given in Mānasāra. He is twenty armed. All the heads have *jaṭāmakutas* and *kuṇḍalas* in the ear are quite distinct. He wears *kaṇṭhabharaṇa* garnished with studs. The *prakōshṭa-valaya*, *yagñopavīta*, *udarabandha*, *sarpa-kēyūra*, *mēkhalā* and *nūpuras* are quite visible. All the hands seem to hold something of which a club, a trident, *khaḍga* etc. can be made out. One of his right hands is in *abhaya* pose while the left is resting on his thigh. The *dhōti* (*antarīya*) worn by him is tucked upto his knees. The elegant sculpture can be dated to 9-9th century A.D. of the Eastern Chālukyan period and it is the earliest known sculpture representation of Mahāsadāśiva so far known in Hindu iconography. The dating of the sculpture is done on stylistic grounds.[6] The *kirīta makuṭa*, *graivēyaka*, *mēkhalā*, *sarpa-kēyūra* are typical of Chālukyan art and parallels of them, we see in many early Chālukyan sculptures adorning the temples. Particularly, one can see the prolific representation of *sarpa-kēyūra* in the early Chālukyan sculptures. This ornament which was present at Aihoḷe, Bādāmi, Paṭṭadakal, Elephanta, Nāgārjuna-koṇḍa, Amarāvatī, Kaṇhēri, etc., makes its appearance in early Chālukyan period in profusion, thereby indicating its popularity.

However, we get other examples of Mahāsadāśiva in places like Khajuraho, Kalañjar in Madhya Pradesh, in Tanjore district of Tamil Nadu and Himachal Pradesh.

A sculpture of *chaṭushpāda*-Mahāsadāśiva is displayed in the Archaeological Museum, Khajuraho in Madhya Pradesh. His heads are arranged horizontally in two tiers. The dome like projection over-head suggests the Īśāna aspect of the deity. His available lower right hand is held in gift-bestowing attitude and the four legs are arranged as in the image of Sadāśiva carved on the Kandarīya Mahādeva temple at Khajuraho. The sculpture can be dated to the Chandēlla period-10th century A.D. Another example of rock-cut sculpture of Mahāsadāśiva can be seen near the Nīlakaṇṭha temple at Kalañjar (Madhya Pradesh). The multi-armed god has several heads arranged horizontally in three rows. He holds a rosary, a *khaṭvāṅga* and a *mātulaṅga* and other attributes in his hands. He is shown *ūrdhvaretas*. The image is datable to 13th century A.D.

Similarly, an image of Mahāsadāśiva is noticed at Vaidyēśvaran *kōyil* in Tanjore District. In this sculpture, the heads are arranged in tiers in arithmetical progression like 1, 3, 5 and 9. He has twenty five faces, each of the five aspects of

Śiva being represented by five faces. Only the border heads are having *jaṭāmakuṭa.* The hands are held in *abhaya* and *varadā* poses as usual. He is seated in *ardhaparyaṅka* pose.[7] The sculpture can be dated to 18th century A.D.

Besides, a miniature painting of twenty armed Mahāsadāśiva of 18th century A.D. and an eighteen armed Mahāsadāśiva of 19th century A.D. all of *Kāngra* style are in the collection of the National Museum, New Delhi.

It is noteworthy that excepting Andhra Pradesh, Tamil Nadu and Himachal Pradesh, no image of Mahāsadāśiva is reported to have been published from Rajasthan, Uttar Pradesh and Bengal. Further, the Andhara Pradesh contributes probably the earliest known sculptural representation of Mahāsadāśiva of the medieval period.

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2. J.N. Banerjee, "*The Development of Hindu Iconography*" pp. 478, 479 ff. The Śaivasiddhāntins speak of three *tattvas*—Śiva Sadāśiva and Maheśa. Also see *JRASNS.*, Vol. XXIX, 1933, pp. 171-254, Plates 13-18.
3. H. Krishna Shastry, "*South Indian Hindu Gods and Goddesses*" (Madras, 1916), p. 77.
4. K. Krishna Murthy, "An unique sculpture of Mahāsadāśiva from Pedda Veṅgi Andhra Pradesh," *JOR* (Madras), Vol. XXXVI (1966-67) pp. 1-2.
5. The figure representing five aspects of Śiva are also described in the Vishṇudharmōttara : Rao, T.A.G., *Elements of Hindu Iconography*, II, pp. 375-76.
6. Dr. B.N. Sharma, in his book "*Iconography of Sadāśiva*" refers to this sculpture and dates it to 13th century A.D. He sees the continuation of the Chālukyan tradition in the sculpture. It will be more logical to presume that stylistically the sculpture is of Chālukyan period itself and moreover its availability from the capital of the Eastern Chālukyan i.e., Pedda Veṅgi is quite noteworthy.
7. T.A. Gopinath Rao, *Elements of Hindu Iconography*, Vol. II, p. 374, pl. cxiv, fig. 2; Banerjea, *op. cit.*, p. 228, f.n. 2. He makes passing reference to the similar arrangements of the heads of multi-headed Avalōkitēśvara figures belonging to the Vajrāyaṇa pantheon of Tibet and Nepal.

42

VISHṆU SCULPTURE IN GOA MUSEUM

D.B. Naik*

The State Museum of Goa at Panaji, possesses a beautiful stone image of Vishṇu. The sculpture of Vishṇu was brought to the Museum from Cuncoliem in Ponda taluk of Goa. The hamlet of Concoliem, which is about 25 km from Panaji lies on the southern foot of Cundai mountain surrounded by evergreen hills.

The image of Vishṇu which was lying in the premises of a small temple in the village was broken into nine small pieces. It was locally called Nārāyaṇadēva. The *Agnipurāṇa*, *Padmapurāṇa*, the *Chāturvarga Chintāmaṇi* of Hēmādri and the *Rūpamaṇḍāna* give classification of Vishṇu images as per the position of the four attributes in hand. The Vishṇu image from Cuncoliem has *Śankha* in right lower hand, *Padma* in right upper hand, *Chakra* in left upper hand and *Gadā* in left lower hand. The Vishṇu image is thus identified as *Padmanābha* on the authority of *Agnipurāṇa*, *Hēmādri* and *Rūpamaṇḍāna*, while as per *Padmāpurāṇa* it assumes the form of *Hari*. The identification of Vishṇu from Cuncoliem as *Padmanābha* is further strengthened on the authority *Rūpamaṇḍāna* which describe the classes of votaries fit to worship a particular *mūrti* of Vishṇu. *Padmanābha* is particularly the god of the potter, the petty merchant, the harlot etc. The little village of Cuncoliem is particularly famous for its potters and many families of potters; now settled in different places originally belong to Cuncoliem. In the vicinity of temple too, there are still some ancient families of potters. The Vishṇu image, locally known as Nārāyaṇadēva is without doubt is of Padmanābha.

The image is chiselled out of Talc Chlorite Schist which is a very fine grained stone, soft to work and capable of retaining precision and minute chisel work. Schist is soft to work when first quarried and then turns to admantine hardness on exposure to air. The Vishṇu image too is a beautiful piece of art in chlorite schist with very minute and detail work.

The main image of Vishṇu is a *Samapāda Sthānaka mūrti*. It stands 89 cms high and 38 cms broad. The head of the image is covered with *Kiriṭa-Makuṭa*, which is peculiar to Vishṇu icon. *Prabhāmaṇḍala* or *Śiraśchakra* in the form of flames issuing from the rim, is seen at the back of the head. The image of Vishṇu is shown decked with all the ornaments mentioned in the *Śilpa* texts. It wears *Makarakuṇḍalas* in ears while in the neck it has the usual *grīva*, *upagrīva*, *Hikkasutra* and the *Vaijayantimāla* flowing upto its knee from the left shoulder. The *Skandamalas* too are not missing. The intricately carved *Udarabandha* and *Kaṭisūtra* with *ūrudam* and *muaktadam* are also prominent on this Vishṇu image. A miniature *Kīrtimukha* figure is carved on the *Kaṭisūtra*. The image is also shown wearing *Kēyūras* on biceps, *Hastavalaya* on wrist and *aṅgulimudrā* on all fingers. Similary *Pādavalaya* and *Pādajālaka*, are shown on the feet. The *prabhāvaḷi* of this Vishṇu image too is complete with all details. Two delicately carved pilasters are supported from the side by two dwarf male figures, over which are figures of elephants with *Māhut* carrying swords and shields and above this there are figures of *Viralikas*. The two pilasters with *Śikhara* pattern are connected with delicately carved *Makaratōraṇa* with a figure of *Kīrtimukha* at the apex.

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*Archaeological Museum of Goa, St. Inez, Panaji.

Daśāvataras of Vishṇu are depicted in miniature figures on the *makaratōraṇa*. The first two avatars of *Matsya* and *Kūrma* are depicted in the form of a fish and tortoise respectively. Immediately preceeding these two figures is personified figure of *Varāha*, followed by *Narasimha* and *Vāmana*. On the left hand top side of *Tōraṇa* is a group of three *avatāras* with *Paraśurāma* at right, *Rāma* in the middle and a partly mutilated figure at the left is probably of *Balrāma*. The depiction of rest of the *avatāras* is lost as a broken part of the sculpture is missing. At the feet of the main deity there are attendants in two groups. The groups of three attendants on right hand side has *Garuḍa* in his customary kneeling position with *añjali mudra*. Next to him is *āyudhapurusha* identified as *Śankhapurusha* with *Śanka* in his right hand. *Śrīdēvī* the goddess of sky, holding a lotus flower in her hand is shown next to *Śankhapurusha*. She is depicted bare breasted and her ears are decked with round ear-rings.

The left hand group of the two attendants is completely broken and only face of a male figure is visible. It is probably a *Āyudhapurusha*. The other female figure is probably of *Bhūmidēvī*, the goddess of the earth.

The overall dimensions of the sculpture along with *prabhāvaḷi* is 133 cm high and 65 cm broad.

Nāmam, which is fairly important character in the iconographical history is not seen on the forehead of the Vishṇu image. Jouvenu Dubreuil G. and Martin A.C. in their "Iconography of Southern India" state that *nāmam* mark which is fairly common in recent images first appeared during Vijayanagar period and it was never seen before 15th century. The remarks by the same authority on the two goddesses *Śrīdēvī* and *Bhūmidēvī* are also of importance from chronological history. The images of these two goddesses prior to 14th and 15th century are always depicted with bare breasts. It is only after this period that the breasts of *Śrīdēvī* and *Bhūmidēvī* are covered with *Kuchu* or *Kanjagam*.

All the iconographic characteristics of the Vishṇu sculpture such as the pilasters with intricate designs, the patterns of the attributes and the style of holding the attributes in the respective hands, the *Kīrtimukha* pattern etc. clearly indicate later Chalukyan influence on the sculpture.

The sculpture when found was broken in nine pieces and was profusely covered with moss and lichen. The conversation treatment of the sculpture were complex and consisted of removol of moss and lichen, fusing of all the broken parts, consolidation of stone and chemical treatment. But for the broken missing parts, the image is now restored to its original glory.

43

A SŌMASKANDAMURTI SCULPTURE FROM MARKANDA, DISTRICT CHANDA IN MAHARASHTRA

D. Hanumatha Rao*

Mārkaṇḍa is a very small village situated on the left bank of a perenial river Wainganga, 216 km South-South-East of Nagpur, 65 km East of Chanda and 8 km North West of Chamursi.

The place is an important pilgrim centre in the Vidarbha region attracted by masses for its sanctity and by scholars for its antiquarian value. There are nearly two dozen temples of different dimensions that have come up at different occasions during medieval period. These temples are, first noticed by Alexander Cunningham[1] and subsequently they are declared as centrally protected monuments by the Archaeological Survey of India. The largest among the group is dedicated to *Mārkaṇḍēṣvara*, a form of *Śiva* is noteworthy for its sculptural grandure and architectural beauty designated by some scholars as the 'Khajuraho of the Vidarbha' region, [2] and on stylistic grounds their date ranges in between 9-12th centuries A.D.[3]

Though the temples as we see today are of medieval origin, there are ample early evidences in the form of foundations of brick structures, short epigraphical records engraved on huge boulders that are scattered here and there, pottery and sculptures of early date, which may push the beginning of the *kshētra* to a much earlier date. In this connection, it may be stated here that, Cunningham after seeing the primitive look of the enclosure wall has stated that the wall is much earlier than the temples within.[4] Even the trial digs carried out by the author in the temple complex have revealed the existence of early brick walls, beneath the present temples.

The sculpture under discussion is one of the datable evidences that the place contained may belong to the early phase of art. Many scholars have visited the place ; some of them have noticed this particular sculpture, but not attached much importance for its proper identification.

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Even Cunningham who first visited this place has described this as "there is a male figure with four arms carrying a battle axe and attended by two females. A snake encircling his waist may perhaps serve to identify the figure with Śiva but there is no other trace of the God, so far as I could see" [5] The present writer had an opportunity to study the sculpture while discharging his official duty of sculptural documentation at the place. It is an important sculpture different in many respects with the other sculptures at the place.

The present sculpture (Pl. LXXVI) is a solitary example lying on the southern side of the main temple. It is carved on a huge and sand-stone block of 1.05 × 0.65 × 0.30 m size. There are two panels on the slab among which the smaller one on the left is containing a male figure, seated on his legs , head mutilate, and his right hand is in action may be the sculptor himself, who might have carved the important panel on the same stone. In such case, the label inscription *prā-ya-śrī* carved on the top of the same stone may be the sculptor's name because such practice was in vogue during 5th century. The sculptor Dinna of Mathura, has inscribed his name on the collosal reclining Buddha figure at Kasia (Kuśīnagara).[6] Whatever may be the truth, the main sculpture under discussion is panelled on the right side of the stone which is larger in extent covering an area of 65 × 38 cm in which the family scene of Śiva is schematically arranged and carved in round.

In this panel on the right side, the figure of Śiva is carved, seated on a raised platform apparently containing some design on its outer face. He is in *utkalikāsana* pose in which he kept this left leg bent resting on the seat, while the pendent right leg is made to rest on the cushion below. He has four hands, the upper right hand is holding a *ḍamaru,* while the left hand has a battle-axe or *paraśu.* Unfortunately the lower two hands are mutilated. His head-gear is in coiled *jaṭājūṭa* form, having a circular *prabhāmaṇḍala* at its back. He is wearing a beaded necklob (*kaṇṭhi*), *ratna* and *makara kuṇḍalas* to his left and right ears respectively. There are wrist-lets (*prakōshṭavalayas*) at his fore-arms. A thick pearl studded cross-belt (*mukta-yajñōpayīta*) is kept hanging from his left shoulder. Peculiarly his folded left leg is tied with the waist firmly, by a hooded serpant (*nāga*). His facial expressions though not distinct, suggest that he is in happy mood seated in the company of his family.[7]

A little away to his right, the figure of Pārvatī, his consort is carved. She is seated in *Ardhaparyaṅkāsana* on a well designed stool (*Pīṭha*) with a vase or a cup (*Kalaśa*) kept beneath.[8] Though she is seated siderally (an early feature) the face is however frontal.[9] She has two hands of which, the right one is in *daṇḍa* or *Gajahasta* posture resting on her left knee, while the left is held with an object though not distinct may be a lotus flower. She is decked with various ornaments— heavy circular ear-ornaments (*Vritta-karṇa-kuṇḍalas*) necklaces (*Kaṇṭhābharaṇās*) wristlets (*Prakōshṭavalayas*) bracelets (*Kēyūras*) beaded *Vaikashaka*, broad waist band (*mēkhalā*) and anklets (*nūpurās*). Her curly hair in wig fashion resembles the female figure on Deogarh temple walls.[10]

In the same panel, in between the figures of *Pārvati* and *Śiva*, we could see a small boy carved standing. He is naked. Unfortunately his face is mutilated. He has hands, his right hand is touching his mother, while the left kept at his waist. He is none but their beloved son Skanda. All the details and the position of the figure tallies with the description given in *Śilparatna* text.[11]

In addition to above in the extreme left top corner of the panel, just by the side of Pārvatī, a female attendant is skilfully carved. She is standing and holding a whisk (*chauri*) in her right hand. Her hair dress is almost similar to that of Pārvatī, but she is decked with limited ornaments.

The above panel with the figures of Śiva, his consort Pārvatī and their young son Skanda, is nothing but Sōmaskandamurthy form of Śiva. It is one of the happy forms of Śiva, considered to be most auspicious form of worship. The same form is vividly described by Kālidāsa in his monumental work *Raghuvaṁśa*.[12] We come across this form very rarely in Northern India, but commonly found in Pallave monuments and Chōḷa bronzes in the South.[13] Most probably, the panel under discussion may be the first of its kind so far found north of Gōdāvari. In the Pallava monuments we find this sculpture invariably either carved or painted on the back wall of the main cell behind the Śivaliṅga. It seems that the earliest representation of the sculpture comes from Parameśvara Varman's monuments (circa 672-700) in Tamil Nadu.[14] There are literary as well as epigraphical evidences to show, that this aspect of Śiva has been worshipped by the people to beget children.[15] This would have been the same with the present sculpture.

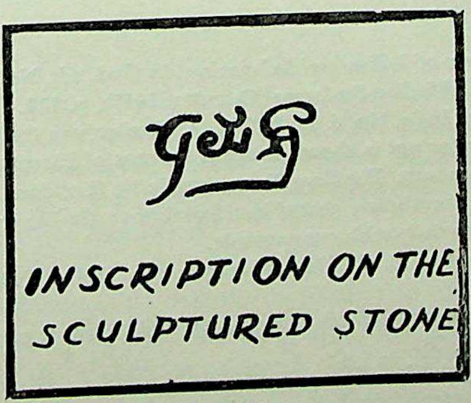

Fig. 19

Though the theme is the same, the present one differs in many respects with that of Pallava example. In the former panel, the figures are limited and well arranged, whereas in the latter,[16] the figures are many and over crowded. In the Pallava example Pārvatī sits on the left side of Śiva and shares the same seat but in the present example she is shown seated on a separate seat on the right side of Śiva. In the Pallava example, other Gods of trinity are also shown but in this sculpture only an attendant is shown. In Pallava example Skanda is shown seated on the lap of his mother, but in the present example he is shown standing playfully. Even the figures that are represented in the present panel are of well proportioned and decked with limited ornamentation and look more beautiful than the Pallava example.

Regarding the date of the sculpture, our reliable evidence in the small label inscription (Fig. XVII) engraved on the top of the slab which reads '*prā-ya-śrī*'. On palaeographical grounds Cunningham dated it to 6th centura AD.[17] The other source of information is the artistic merits of the panel. The panelling, the postures and the anatomy of the figures even the dress and decoration all appropriately tally with the art traditions that were in vogue during Gupta and Vākāṭaka periods, in U.P. and in Maharashtra respectively. The findspot of the sculpture is also in Maharashtra, which remained under Vākāṭaka rule for a longer period. In many respects, the sculpture is more closer to Vākāṭaka art traditions, the could be seen at Ajanta and Ellora of the same period. Hence, it may safely be dated to 6th century A.D. In all probability, this could have been the fore-runner of the Pallava example.

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5. *Ibld.*, p. 149.
6. A. Coomaraswamy, *History of Indian and Indonesian Art* (Ind. ed., New Delhi, 1972), p. 84.
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8. C. Sivaramamurti, *Ancient India*, No. 6, Pl. XXIII, A. Similarly in the Somaskandamūrti panel of the Pallava period, a water pot is shown beneath the seat of Pārvatī.
9. James Burgess and J. Fergusson, *The Cave Temples* of India (London, 1880), Pls. XXXIX and XLIX. Here the ladies are shown seated in sidereal pose, similar to Pārvati figure here; the hair dress and the anatomy tally with our example.
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17. Cunningham, *op. cit.*, p. 149.

44

THE INFLUENCE OF WESTERN ARCHITECTURE ON THE TEMPLES OF GOA (18TH CENTURY TO 20TH CENTURY)

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Portuguese were the earliest European power to establish their rule in India. Even during the rule of second Governor, Affonso Albuquerque there are evidences to show the destruction of the temples carried out by Portuguese. *Saptakōṭēśvara* temple of Divari island known since the rule of Kadambās was destroyed in 1540, during the rule of Albuquerque, though he maintained cordial relation with Hindus as a matter of convenience.[1]

Christian missionaries started their conversion activities within the first decade of Portuguese rule. Friar Antomio on November 14, 1518 addressed a letter to the King of Portugal which clearly illustrates the spirit of conversion.[2]

Beginning with the destruction of Hindu temples at Goa in 1540, the Portuguese authorities, mainly at the promptings of local ecclesiastics of the crown, a large number of harsh and oppressive laws were made with the object of preventing the public practice of Hinduism.[3]

The order of D. Sabastio dated March 25, 1559 prohibited the existence of Hindu temples, celebration of Hindu festivals and the order further added that Hindu temples erected in any part of Goa and the temples which already exist should not be repaired without royal permission contravention of which entail the penalty of such temples being destroyed and their value applied towards expenses of the pious works.[4]

During the same period court of Inquisition was established in 1560. This ecclesiastical court gave an impetus to the religious presecution and destruction of temples. In total in three talukas of old conquest namely Tiswadi, Bardez and Salcete 566 temples were destroyed.

Periodically local ecclesiastical council met in Goa from time to time for the spread of Catholic sect and recommended the following measures.

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1. All the religions other than the orthodox Roman Catholic faith as defined at the council of Trent were intrinsically wrong and harmful themselves.

2. The crown of Portugal had the inescapable duty of spreading the Roman Catholic faith and secular power of the state could be used for support of the spiritual power of the church.

3. Convertion must not be made by force was largely nullified in practice by various other decisions of the council which received the sanction of law by a vice rag, at decree promulgated on 4th December, 1567. This decree enacted interalia, that all heathen temples in Portuguese territory should be demolished.[5]

Roman Catholic churches were built on or near the sites derived from the lands belonging to the latter was transferred to the support and maintenance of the former.[6] There was vigorous construction activity of churches in Old Goa and in some other places of Goa, at the fag end of 16th century and at the beginning of 17th century. Majority of the architecturally important churches were built during this period. These churches were built of mainly laterite and lime plastered.

Dr. Calidus Buchanan was on visit to Goa, wrote in 1808, that the magnificance of the churches in Goa far exceeded the idea he had formed of them from description given by travellers. "Goa", he said, "is, properly speaking, the city of churches and the wealth of all provinces appears to have been spent in their erection." "These specimens of ancient architecture" Dr. Buchanan, remarked, "are unrivalled in taste as well as in grandeur by any that can be witnessed in these days in any part of the East."[7]

In the well known churches of Goa, Baroque influence can be easily seen and even the decorative platform of crosses from Madgaon, Daman and Merces near Panaji are not devoid of this influence. The term Baroque can be precisely defined "as self-confident realistic, dignified and measured, neither nervous nor tortured or precious".[8]

However, the campaign of the destruction of Hindu temples existing in Portuguese territories did not entirely succeed in its object as they were soon replaced by new temples which have been destroyed and smuggled outside Portuguese territories and installed there. For instance Mangesh from Cortalim, Mhalsa from Vermem were installed in Priol, Shāntādurga from Cavelossim was installed at Kavle, Rāmanathi of Loutulim and Mahalaxmi of Colva were installed at Bandora.[9] Narasimha of Sancquale was installed at Veling and Dāmōdara of Margao at Jambāwali. These deities were shifted in about 1560.

Deities were just shifted to various villages of Ponda as it was under Saundas of Karwar who, were Hindu rulers (belonging to Vōraśaiva community), only small structures to house the ancient shrines were built. Portuguese established their hold on Ponda only in 1763. But by then the court of inquisition lost its vigour and was finally abolished in 1820. Hindus who were persecuted till then had no sense of security and could not practice their faith in public. In such insecure conditions Hindus were not in a position to organise themselves and colecIt funds for the construction of temples. But after 1820, gradually the conditions improved.

Portuguese became tolerant and they did not interfere with religious practices of Hindus.

The construction of temples located in Ponda taluka commenced at the beginning of the 18th century. The first temple to be constructed was Shāntādurga in 1738. During 19th and the beginning of the 20th century construction activity of the temples gathered momentum. Temple of Rāmanāthi of Nāgeśi was reconstructed in 1905, Bandivade Mahālakshmi in 1913, Kāmākshi temple of Sirodā in 2nd half of 18th century. Mangēśi was constructed at the beginning of 20th century.[10]

The well known temples which have been referred to above have received large donations from well to do *Sārasvats* of Goa, Mangalore and Karwar. The *Sārasvats* who settled down in distant places periodically pay visit to their family deities. The attachment and strong faith in the family deity made them to offer large sums towards the construction and maintenance of the temple. Royal patronage had also some share in the donations of the temples constructed during 18th and 19th century. "Bajirao I, the Prime Minister of Shahu Raje continued this tradition and the modern temple of Shantadurga at Kavale was built under his order (Saundes) in A.D. 1738. The Saunda chief who had accepted the vassalage of the Marāṭhas, executed orders. Monetary grants were also made to Shri Nagesh, Mhalsa temples during the Peshwa regime."[11]

Only massive baroque churches of Goa were in the vision of Hindus of Goa, because no classical temples belonging to early dynasties of Goa, such as Chaḷukyas, Kadambās or Vijayanagara existed and filled their vision. As already stated Portuguese destroyed about 556 Hindu temples in Goa during the beginning of their rule and practicing Hindu faith in public was forbidden but in latter part of the 18th century such religious restrictions on Hindus were relaxed. Thus Hindus enjoyed more religious freedom and were not cut away from the main land (Indian continent). They were paying visit to holy shrines located in Maharashtra, North India and South India. Such pilgrimages would have brought some outside influences or it would have been possible for them to introduce architectural styles prevailing in other parts of the country. Though Hindus left their abode and settled down with shrines in new conquest on account of the persecution by Portuguese, the psychological shock and economic hardship or other difficulties did not evaporate their creative ability. Hindus adjusted with the new environment and assimilated new Western influences brought by Portuguese. Instead of using schist or granite they used easily available laterite for the construction of temples and made use of lime plaster for the walls. The use of locally available laterite for the construction of the temples reduced the cost of the construction. The local masons who had experience in the construction of the churches were perhaps utilised for building Hindu temples of the new conquest.

Due to the assimilative character, in Ponda these Hindu temples of Mangesa, Bandora, Quela and Shiroda imitate and adopt the structures of towers and sanctuaries, balustrades, the stony cornices mouldings of the counter reformation churches, acanthus leaves and freizes decorated with metopes and triglphys, that are in no way different from these nearly churches.[12] Besides these above elements we cannot miss the attractive dome of St. Cajetan church, which became quite popular and was freely borrowed for Hindu temples. Instead of the usual *Vimāna* we find dome over Mangeshi, Malhsa, Shatadurga, Ramanathi Navdurga and Shirkali.

The facade of St. Cajetan has a considerable height and has towers in the front. The dome is placed on an octogonal tower, which is only partially visible for a visitor who is taking view of the church from the front. The high facade and towers do not give a sense of soaring hight to these towers. But the towers of Mangesh, Malhsa, Shantadurga and Mahakali have a sense of soaring height (Fig. XVIII). These towers of temples are also octogonal with motif of niches one in each side of polygon. The gabled roofs with tiles are an environmental necessity in a coastal area like Goa. The domes of the above well known shrines are found in the midst of gabled roofs. As these gabled roofs have lesser height and the temples do not have high facade or towers. In the above constrast in which domes are situated certainly give a sense of soaring height.[13]

Goa had a rich tradition of wood carvings from medieval times. In Malhsa temple (c. A.D. 1000) of Verne, which was destroyed by Portuguese rulers had rich wood carvings. But even after lapse of more than two and half centuries the tradition of wood carvings and using wooden pillars in the temples of new conquest did not disappear but continued. In Mallikārjuna temples of Canacona, Malhasa temple of Mardol, Nagesh temple of Priol, Māhālakshmi temple of Bandivade, Ananta temple of Savai-vere and Gaṇēśa temple of Khandole rich wood carvings are found. The builders of the new temple preferred wooden pillars to laterite lime plastered pillars. It seems the tradition of the pillars still had strong roots. The teak which is locally grown in abundance was used for wooden pillars. Artisans from Kumta (Kārwar) who are known for wood carving were employed by the builders.

Shivāji the founder of Marāṭha power reconstructed the temple of *Saptakoṭīśvara* in 1688 (inscription which is above the entrance of the *Sabhāmaṇḍapa* mentions the name of Shivāji and the year of construction) at Narva in Bicholim taluka. This is the solitary temple which is devoid of any Western influence.

Among the several characteristic features of the temples complexes of the Deccan is to be counted the graceful lamp tree known as *Dīpamālā*.[14] Even with reference to the temples of Goa built during the 18th, 19th and 20th centuries, this characteristic features also can be noticed.

The *Dīpamālā* in Māharashtra were originally attached to a *dēvī* temple. Later on it came to be associated with Śiva temples also. But in Goa, such tradition has not evolved and is not present in modern times. In Goa *Dīpamālās* are found both in *Dēva* and *Dēvī* temples.

Dīpamālā of Deccan or Mahārashtra are tapering columns of stone masonry not more than fifteen to twenty feet high. Some times these are of brick masonry also. From these *dīpamālās* number of hastas or brackets project fourth.[15] (Fig. XIX).

Two types of *Dīpamālā* are found in Goa namely, the popular octogonal *Dīpamālā* (Fig. XX) evolved out of octogonal decorative cross or octogonal tower

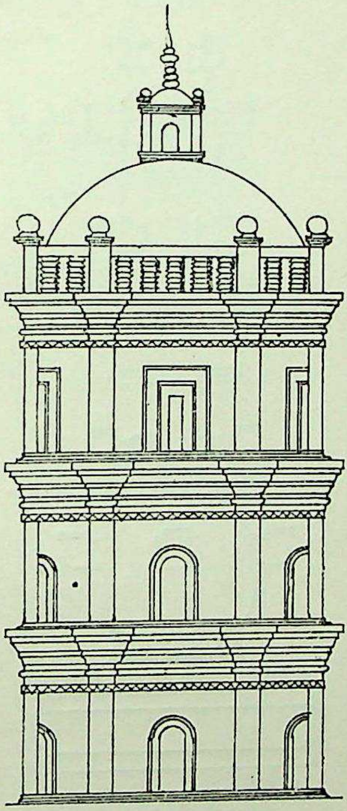

Fig. 20

found on St. Cajetan church and sixteen sided polygonal *Dīpamālā* found in front of *Saptakōṭēśvara* temple (Fig. XXI). Both are constructed out of laterite and lime plastered and are different from *Dīpamālā* of the Deccan. The sixteen sided polygonal *Dīpamālā* which is in front of *Saptakōṭīsvara* temple is constructed on octogonal platform of four steps and upper steps successively become smaller. This type of *Dīpamālā* is divided into tiers, which are meant for keeping lamps. The tiers running round the *dīpamālā* give an appearance of a round pillar. At the apex of *Dīpamālā* a *Pūrṇakalaśa* is placed. Each tier is decorated below with hood motif of Cobra. The cylindrical *Dīpamālā* is purely utilitarian and we do not find western influence on it. In front of Dāmōdar temple of Jambavalim and Vanadévī temple of Mulgaon, this type of *Dīpamālās* are found. Cylindrical *Dīpamālā* could be constructed in a short time and even a mason with lesser technical skill could undertake the job. However, this kind of *Dīpamālā* did not become much popular in Gomant. For the construction of octogonal *Dīpāmālā* a skilled mason was required as these are more complicated than cylindrical *Dīpamālās*, whice have been just referred.

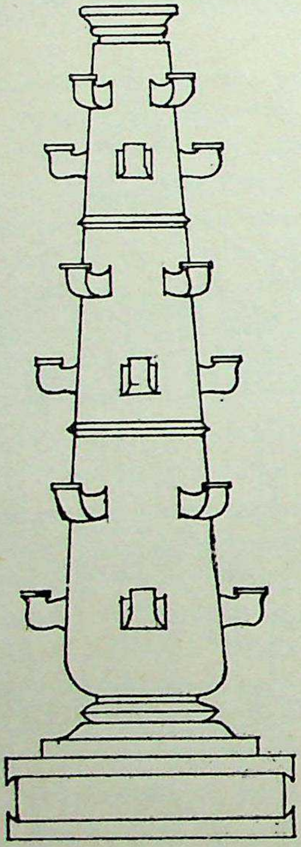

Fig. 21

Both types of *Dīpamālās* are attractively white washed every year. Octogonal *dīpamālās* of Goa have a considerable height (about 40-45 ft. average height). The *Dīpamālā* of Santadurga temple has a height of 60 feet and it stands as rival to *Vimāna*. These *dīpamālās* are multistoried some times six or seven floors. Instead of hastas or brackets which project forth in Deccan, *dīpamālās* of Goa are provided with niches on all sides. In other words from first floor onwards there are eight niches on each floor. As the ground floor is below the level of the eyes, niches are not provided but only niches motif can be seen here. The *Dīpamālā* is a tower like structure but it is not tapering like Deccan *dīpamālā*. *Dīpamālā* of Gomant look more artistic and majestic than *Dīpamālā* of the Deccan.

Dīpamālā of the Deccan have evolved out of Islamic minars. As already stated *Dīpamālās* of Gomant have evolved out of octogonal tower of chruches and decorative octogonal platform of crosses. Sometimes we find manuliean rope decoration on the decorative platform of the cross. This decoration is dropped on

Dīpamālā. On all sides of *Dīpamālā* simple bold pillars continue upto the top. Each floor at the top has an architrave which forms the platform for the next floor. Baroque influence can be easily recognised on these *Dīpamālas.* In short *Dīpamālās* of Gomant are embodiment of Baroque influence, intorduced in Goa by Portuguese.

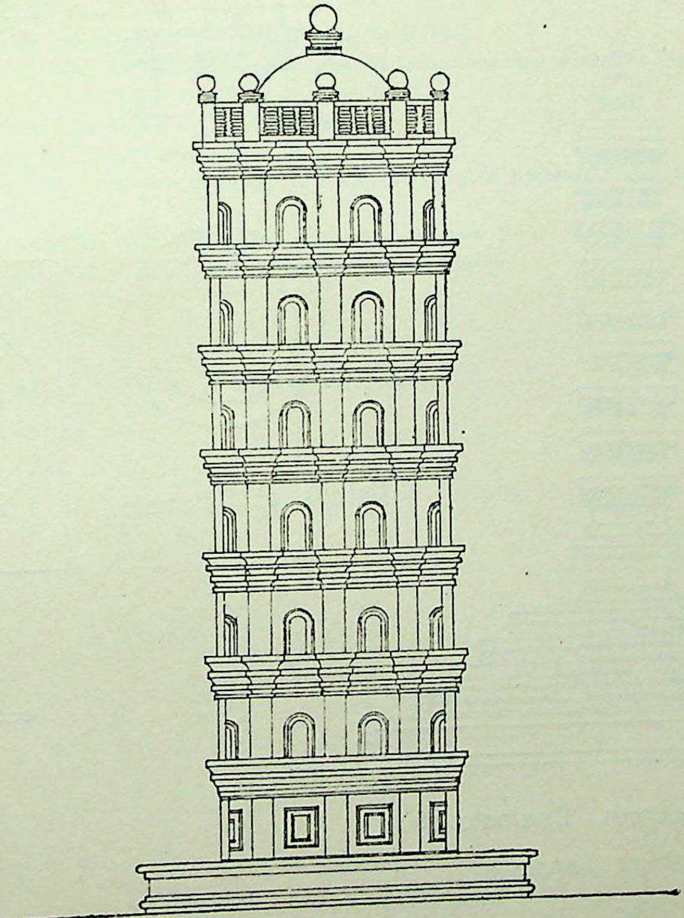

Fig. 22

In some medieval temples of Maharashtra *dīpamālās* are found in large numbers (in Jejuri more than 300 *dīpamālās* are there).[16] But in temples of Goa, number is limited to one, and all attention is concentrated on this majestic and artistic *dīpamālās*.

The mention has been made by Sheldom Cheny in A New World History of Art that "Byzantine Art was marriage of the east and west and only once the Orient came to Europe."[17] But the art historian who studies the Hindu temples of Goa built during 1800-1900 or the early part of this century will certainly exclaim that here is the marriage between East and the West. Thus in Goa, Europe did come to Orient (Orient did not go to Europe) and left a permanent land mark in the art history of Goa.

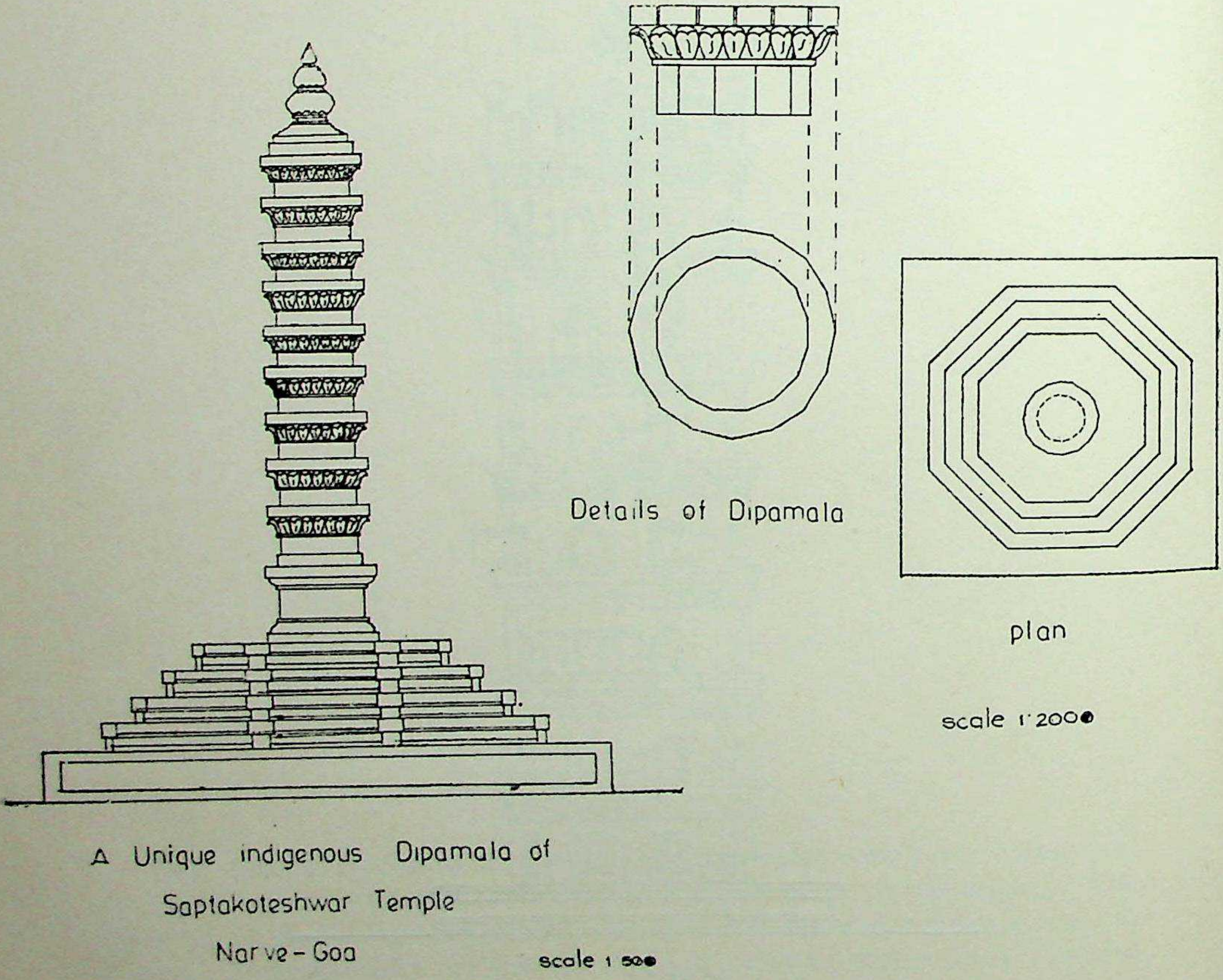
Details of Dipamala
plan
scale 1:2000
A Unique indigenous Dipamala of
Saptakoteshwar Temple
Narve-Goa
scale 1 500

Fig. 23

Acknowledgement

I am thankful to Shri R.N. Naik for preparing drawings included in this paper.

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45

MUKTĒŚVARA TEMPLE—KĀÑCHĪPURAM

K.K. Ramamurty*

Kāñchīpuram, a famous town in Chingleput District and noted for its wealth of temples, was the capital of the Pallavas for over 400 years.

The Muktēśvara temple facing west stands on a bold *adhishṭhāna* supported by a fairly tall *upapīṭha*. It has a *garbhagṛiha* and a *mukhamaṇḍapa*. The floor and top of the *upapīṭha* as well as upto the *paṭṭika* level of the *adhishṭhāna* are of granite while the super structure is made of sandstone. The *grabhagṛiha* has a *sama-chaturasra tritala vimāna* with *vṛitta grīva* and *śikhara*. The front facade of the *mukhamaṇḍapa* has two free-standing pillars depicting couchant lion at the base, and similar pilasters *in antis* at the extreme. The outer wall also provided with rampant *vyāḷa* based pilasters, positioned at the front corners of the *mukhamaṇḍapa* and hind corners of the *vimāna* part proper, the remaining pilasters on the wall are plain with tetragonal shafts. The first and second *talas* of the *vimāna* contain the *hārantara* decor comprising of *kūṭas* and *śālas* whereas the third *tala* is bereft of *hāra* but carries four Nandis at the corners. Both externally and internally the wall portions are carved with sculptural detail chiselled mostly in sunk reliefs.

Besides, the importance of the temple lies in an inscription found engraved on the walls of the Muktēśvara temple. The epigraph is in four long lines. The language is Tamil and the script in Tamil with an admixture of Grantha. The text of the inscription is published in *South Indian Inscriptions.*[1]

The inscription has been assigned to the Pallava king Nandivarman II (A.D. 731-96). The date portion of the record is damaged, however it may be dated to his 28th regnal year (A.D. 759). The epigraph records the gift of a number of dancing girls, five *mantrāchāryas* twelve *Viḷakkuntavaśigaḷ* etc. by Dharmamahādēvī, a queen of Nandivarman II to the god Māṇikkadēvar at the shrine called *Dharmamahādēvīśvara gṛiha.* The inscription registers grant of ten *paṭṭi* of land situated in Kaṇṇandaikkuḍi in Nāyivaṭṭikuḷattūr which was a *dēvadāna* of Māṇikkadēvar, as *Uṇṇāḷigaippuṛam* to the same god Māṇikkadēvar.

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*Archaeological Survey of India, Temple Survey Project, Madras.

The duty of performing the *archana* was given to Tattaśivam,[2] Dharmmakaṇṇan and Aṇantaśivam hereditarily with a right of enjoying the revenue accruing from the land. Besides, two shares (*koṟṟu*) were given to Amudariyan Nāyaṟṟukkaṇi and Mādhaśarman, son of Māḍalar, for the service of beating *taṭṭaḷivu* in the temple.

The present inscription is interesting in more than one aspect. It throws light on the authorship of the temple. Dharmmamahādēvi of the present record queen of Nandivarman II may be considered as author of the temple of Muktēśvara wherefrom the record comes. It is strengthened by a later epigraph in which the Muktēśvara temple is mentioned as Dharmmamahādēvī Māṇikka-Īśvaram.[3] The study of the architectural features also tends to support this view.[4] It may be suggested here that the inscriptions of the successors of Nandivarman II, inform that he had a queen called Rēvā of the Rāshtrakūṭa family. The name Dharmmamahādēvi sounds more like a tittle than like personal name. So it may not be wrong to say that Rēvā *alias* Dharmmamahādēvi was responsible for the construction of the temple.

But the most interesting part of the inscription lies in the fact that it provides one of the earliest references to the famous institution of temple dancing girls. It is little but difficult to divide them individually as the inscription enumerates their names in continuous order, however, an attempt is made here to distinguish fifteen names as follows :

1. Perunaṅgai Poṇṇaḍi
2. Adimāṇi Mādēvi
3. Kumaraḍi Māṇikkadēvi
4. Tigaimaṇi Guṇatuṅgi
5. Tigaimaṇi Suddi
6. Sindaḍi Kumaraḍi Naṅgāḍai Aniyātitti Mūtti
7. Avvadi Viñjaḍi pādaḍi kulakkoḍi
8. Avvaḍi Naṅgaṇ Mudiyakkaṇ
9. Śrīdēvī Naṅgāmi
10. Mādēvi Nālimaṇavāṭṭi Dēvaḍi Mānippoṟṟi
11. Adimāṅi Naṅguṇa Vibhahūvaḷakāmi
12. Maḷalai Nochchi Tāḷimāṇikkam
13. Chittiranidhi Neṟippāki
14. Viṇayaḍi Avvaḍi Śirunaṅgai; and
15. Kāmaḍi Mādi Tigaimaṇi

It appears that Tigaimaṇi, Adimāṇi etc. were a family name or a title conferred on them in appreciation of their *Nāṭya*.

The exact term mentioned in the record for the dancers is *kuttigaḷ*. The women dedicated to dancing were called *Rishabhataḷivār*, *dēvaraḍiyāḷ*, *taḷichchēripp eṇḍugaḷ* and *Kuttis*. There were seven divisions *dattai* (one who voluntarily submits herself to the temple servants), *Vidhṛitai* (selling herself), *prītyai* (dedicated to the temple for family's sake), *bhaktai* (attached to the temple on extreme devotion), *hṛitai* (captured and handed over), *alaṁgāri* (selected by the king) and *rudragaṇikai* and *gōpati* (salary getting girls).

It is generally believed that only during the Chōḷa period, the system of attaching dancing girls to the temple started. But from the present inscription under consideration, it is clear that it had its emergence even in the Pallava period. We get epigraphical evidence for this aspect in the records of Dantivarman and Nandivarman III who were respectively the son and grandson of Nandivarman II.[5]

Interestingly a class of persons mentioned in the epigraph is *Viḷakkuntaśikaḷ*. Minakshi who made a thorough and well informative study of the social life under the Pallavas considered them as cleaning staff of the temple.[6] But the context suggests that they may be the counterparts of the *mantrāchāryas* who were taken to be the reciters of the *vēdas*. If this is an acceptable one then *Viḷakkuntavaśikaḷ* were probably expounders of Tamil religious texts. We know that this period witnessed the emergence of *bhakti* movement in Tamil country.

As said earlier, one of the donees was Aṇantaśivan. One Anantaśivāchāriyār is found mentioned in the Kuram plates of Paramēśvaravarman I.[7] The difference of time between Paramēśvaravarman I and Nandivarman II is barely about 50 years. It may be suggested that the Aṇantaśivan may probably be a grandson of his name sake mentioned in the Kuram plates. It may be mentioned here that Kuram is a village very near Kāñchīpuram.

The duty of *taṭṭaḷivukoṭṭuvār* may be taken to denote the persons performing the beating of drums than beating of metallic plate, in which case, they may, in all probability, be associated with the dancing troupe. The village Nāyivaṭṭikuḷam may be identified with Navattikulam in the Chingleput taluk.

One may wonder that for a temple of a small nature it was so necessary to donote such a large number of girls. Though we do not have any direct reference, circumstantially it may be suggested that their services were utilised by other temples of that contemporary period, especially during the festive occasions. There are nearly ten known temples at Kāñchīpuram assignable to the period from the accession of Narasimhavarman II Rājasimha to Nandivarman II.[8]

Thus, the present inscription provides one of the earliest evidences to the institution of temple dancing girls which was acknowledgedly more popular and wide spread during the Chōḷa period. We know that more than 400 dancing girls were gifted to the Thanjavur temple, by the great king Rāja Rāja I. The Chōḷas, the political successors of the Pallavas, not only followed this pattern but perfected this system. It may be suggested here that attaching of dancing girls to temples, in all probability, had some Kāpālika-Kālāmukha affiliation.[9] Moreover, the occurrence of a panel depicting the *Mahāvratin* aspect of Śiva as carrying a liṅga on his shoulder slightly strengthens our view.[10]

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7. *SII.*, Vol. I; pp. 144-45; *Ep. Ind.*, XVII, No. 22, pp. 340-44, T.N. Subramanyam, *Thirty Pallava Copper Plates*, pp. 33-60.
8. Temples of Rājasimha period—Kailāsanātha, Airāvateśvara, Piravātāneśvara, Iravātāneśvara, Tripurāntaka and Vālīśvara (in Ekamranātha temple); Nandivarman II period—Mukteśvara, Mātaṅgeśvara and Vaikuṇṭhaperumāḷ, the last one is dedicated to Vishṇu.
9. Important Kāpālika-Kālāmukha centres were Kāñchipuram, Tiruvoṟṟiyūr, Mylapore, parts of Tiruchchirappalli and Thanjavur and Pudukkottai with its centre at Kodumbalur. Besides so many ritualistic practices prescribed, the dancing was a 'must' for the monastic order. For a detailed and informative study, see David N. Lorenzen, *The Kāpālikas and Kālāmukhas—Two Lost Śaivite Sects* (New Delhi, 1972).
10. The practice of donating dancing girls to the temples was known to the early Chālukyas of the Karnataka and were they called *Kambada Sūle*. The sculptural depiction of Śiva as carrying *liṅga* on his shoulder are frequently met in art medium. There are as many as seven examples in Kailāsa monolith at Ellora (Rāshtrakūṭa), several at Aihoḷe and Paṭṭaḍakkal (early Chālukya) and at least six in Pallava stages of Tamil Nadu (K.V. Soundara Rajan, *Art of South India—*Deccan, New Delhi, 1980), p. 69.

Revā being a Rāshtrakūṭa princess, there is no wonder her patronage and affiliation showered towards Mahāvratin aspect of the Śaivite monastic order. Also note the titles borne by Narasimhavarman II Rājasīmha as *Śivachūḍāmaṇi* (Śiva for his crest jewel) and *Kālavasanaḥ* (black robed).

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NALADURGA–A UNIQUE FORT IN MEDIEVAL DECCAN

S.K. Joshi*

Location

Naladurga, now a small township in Osmanabad District of Maharashtra State, is situated on the main road connecting Sholapur Naladurga, Omarga, Homnabad and Hyderabad. It is 45 km to the east of Sholapur and 64 km to the south-west of Kalyana of the later Chalukyan fame. Almost it is encircled in two hair pin curves of the revulet coming from the north-west right from Tulajapur of Bhāvani fame and rushing further from Naladurga down towards south meeting finally the river Bhīma. The land around Naladurga is undulated in ridges and valleys; but the general look at the site gives the impression that it is situated in a low lying area not visible horizontally above the line of horizon, with the result that any stranger making an attempt to approach it may miss it in a very short proximity.

Physiography

The first bend of the rivulet from the north-westerly direction strikes at the steep point of the valley with depth of 200-250 m on the south-easterly direction and for about a km. the second bend still deeper, about 300 m., from the north-easterly apex point takes a steep and sharp turn towards south-easterly orientation. In these two bends is a very natural strategic location has been formed by the nature, impregnable by any body in a normal course, and taking this nature's protective gift into consideration, the fort architects have selected the site for defence orientation. Within a radius of approximately 50-60 km. from Naladurga there are various ground forts (*Sthaladūrgas*) situated at Sholapur, Udgir and Osmanabad all in north and north-west, Kalyāṇa and Homnabad in the north and north-east, also Akkalakot and Gulbarga in the south and south-east. While these forts are known as ground forts, the fort at Naladurga is a combination of water fort (*Jaladurga*), hill fort (*Giridurga*) and ground fort (*Sthaladurga*).

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*Archaeological Survey of India, Dharwad.

A Brief History

The history of Naladurga prior to the 10th century A.D. is scanty. During the beginning of hay days of the Kalyāṇa Chālukyas in the reign of Taila I, the fort was constructed in A.D. 973 by Nalarāja a chieftain of the later Chālukyas, as per the inscriptional evidence found at Naladurga itself. In A.D. 1210, the fort was attacked by Malik-Kafur during his southern invasion including Kalyāṇa itself. A Persian inscription fixed in the wall of the fort of Sholapur mentions that the forts of Sholapur and Naladurga were directly under the control of Ibrahim Adil Shah in A.D. 1559. Further from the Adil Shahs of Bijapur it went for some time into the hands of Aurangazeb, who was the Governor of the Southern states of Moghul empire around A.D. 1675. It was relieved by the Nizam of Hyderabad from the Clutches of the Moghuls in A.D. 1724-1823. The Marāṭhas further took over the control of fort from A.D. 1825 to 1853. Meadows Tailor gives a good account of this fort in his historical works. During the British rule in India upto A.D. 1904 it was a District Headquarters and in A.D. 1905 its position in administration was shifted to Osmanabad, and was annexed to the State of Nizam of Hyderabad as per the agreements the two governments. From A.D. 1950, after the liberation of Hyderabad in the police action taken by the Government of India, it merged into the persent state of Maharashtra.

The Forts

The two bends of the rivulet valley, one facing north and the other south, having formed a scarp table land atop have been natural defence moats. On these two plain lands available at the top level, with the rivulet in between, are situated the two forts. The northern is smaller and older than the southern.

The Northern Fort

The northern fort, oval in plan running along the edge of the bend of the rivulet measures in its axis 400 m. north-south and 250 m. east-west. There are two main gateways, one looking the east in the eastern wing, the other the north in the northern wing. The wall is 6.00 m. high and 2.75 m. thick with Kanguras arranged in regular intervals on the top. On the southern end point of the curve of the fort, a flight of steps leading to the deep waters down below, has been projected towards south into the lake, supported by pillars. There is the extant remain of similar passage in the waters with the same width and in the same alignment supported by piers of similar dimensions abutting the northern-bastion-stair case of the southern fort. The trend of the movement of the passage is towards the extant remains of its counterpart in the north. Probably this passage served as a bridge connecting northern fort and southern. Inside the fort the area is plain, and has no structures, excepting a small three arched Masjid in the middle.

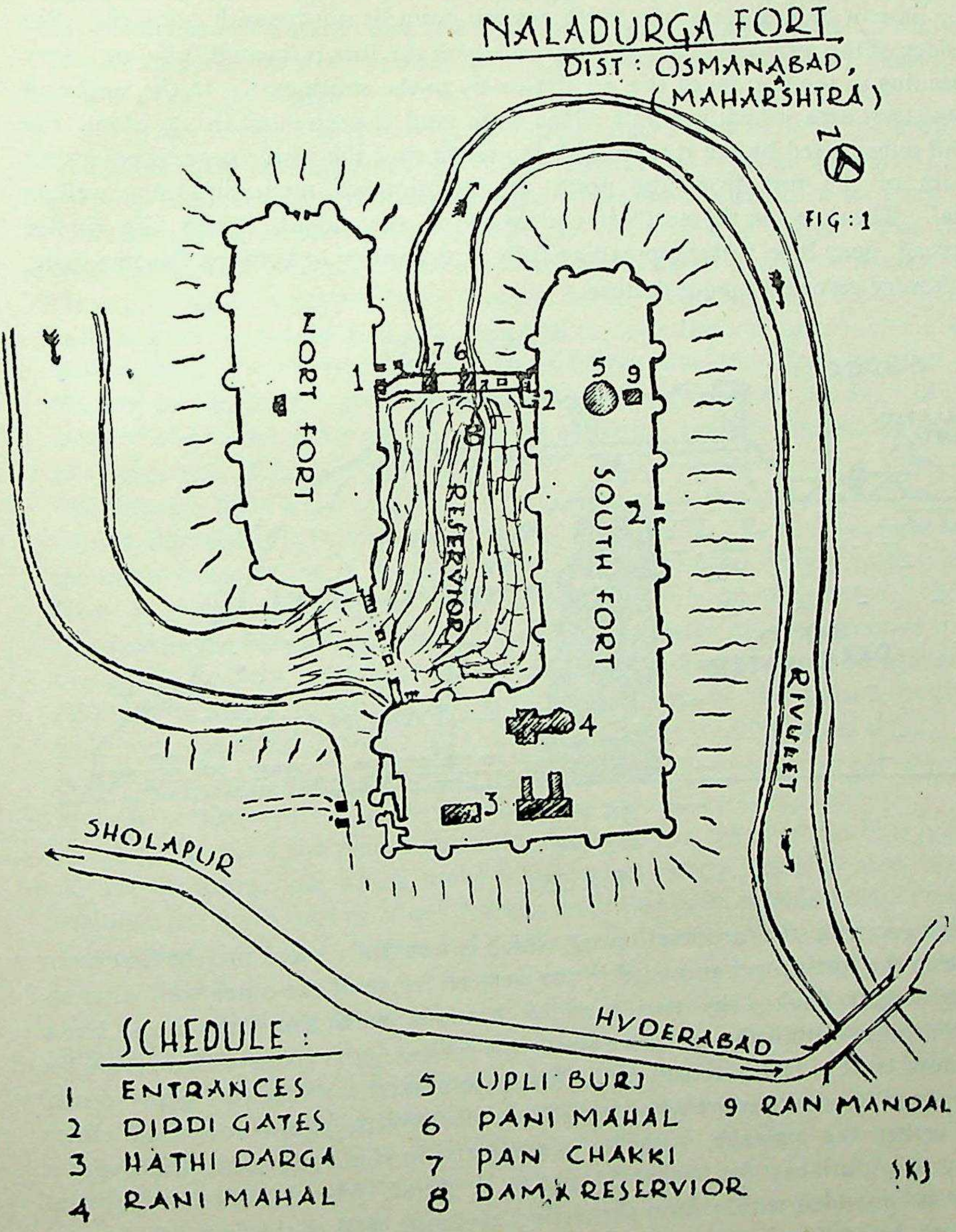
NALADURGA FORT
DIST: OSMANABAD, (MAHARSHTRA)
N
FIG: 1
NORT FORT
RESERVIOR
SOUTH FORT
RIVULET
SHOLAPUR
HYDERABAD
1
2
3
4
5
6
7
8
9
SCHEDULE :
1 ENTRANCES
2 DIDDI GATES
3 HATHI DARGA
4 RANI MAHAL
5 UPLI BURJ
6 PANI MAHAL
7 PAN CHAKKI
8 DAM & RESERVIOR
9 RAN MANDAL
SKJ

Fig. 24

The Southern Fort

The southern end point of the curve and the northern bank of the southern curve, both together providing an 'L' shaped space have accommodated reasonably the southern fort, also in 'L' shape. The base of the 'L' shaped plan of this fort oriented west to east measures on its axis 500 m., while the other arm of 'L' connecting the base in right angle at the south-eastern point, is north-south oriented. The slopy sides of this projected curved area, on which the fort is located fully, are very steep leading to the bottom of the rivulet-valley in the south-east. In the west and north-westerly area, which is a part of the main land, a deep moat is cut along the fort wall outside, fed by the rivulet, with the result that the whole process covers all the sides of the fort from the point of provision of moat; natural as well as artificial. The dam, on the northern end points of the ridges, across the rivulet has spread deep blue waters spreading fully in the valley in between the two forts, which is very rare and unique feature.

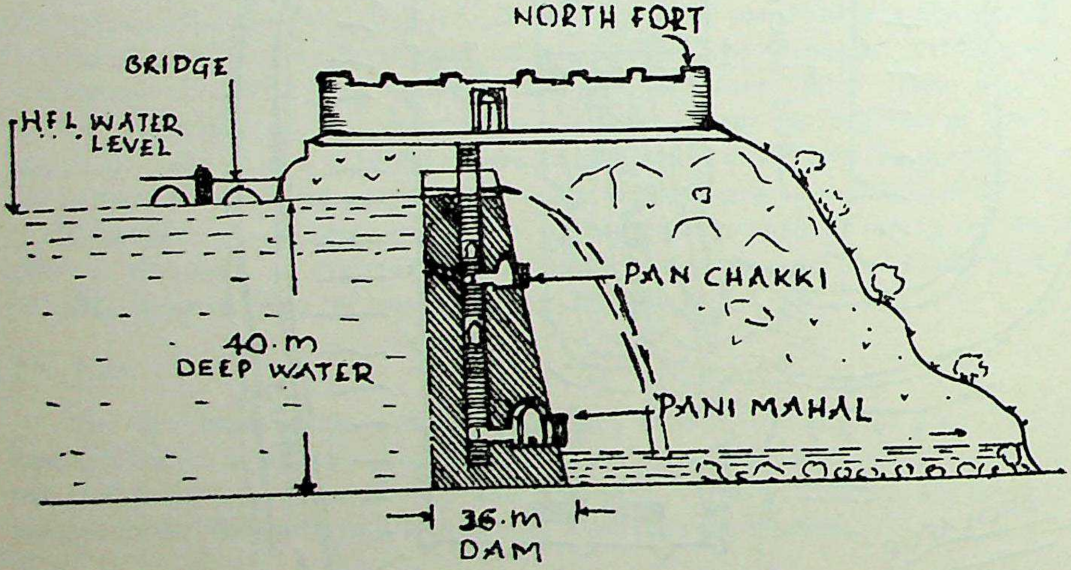

Fig. 25

After crossing the artificial moat, which is now fully silted up, the first main entrance to the fort proper provided in the western fringe of the outer wall with its imposing height flanked by two rounded bastions with Kanguras atop, has a narrow barbican within the enclosure wall with various gun slits in different angles at the top level. The barbican leads further to a narrow and dwarf gate—dwarf because again its environs are silted up—in the north with guard room on either side. Further the passage, with its gradual rise in stone pavement, leads with a bend towards south-east for about 50 m. to a point, whereat another colossal gateway is provided with, within the second enclosure wall of the fort. This gateway exactly again faces west overlooking a row of guard rooms projected behind the wall walk of the first enclosure wall of the fort. The guard rooms are at the lintel level of the gateway and are connected with flight of steps.

The gateway, 8.50 m. high and 3.50 m. wide, is flanked by two half rounded bastions, which are higher than the curtain wall. Inside the gateway, on each side is a guard room in 'L' shape that directly throws open the interiors of the fort.

The colossal wooden door in two panels fitted with iron sharp spikes about 50 cms. long is another attraction of antiquity. Within the right panel another small door is provided with only one shutter for normal movement for public, when the gate is closed during the nights.

Further from this gateway, a broad road about 15.00 m. wide with edging stones on either ends gives a sense of granduer of the royal movements of the past. It runs towards the east. On the right of the road at about 75 m. away from the gateway is a big arched structure, which is called Hāthi Darga. The bays that cross north-east and east-west form a lacuna of exactly a square for each quadrant, the top of which is capped by a vaulted dome. The load of the superstructure including all the roof-domes is transmitted through the squinches into the walls and thence right into the foundation. Hāthi Darga is called so because of its association with, elephants, probably serving as elephants' stable. Further, in the alignment of Hāthi-Darga are the delapidated structures probably meant for administrative purposes, for their proximity to the palace complex just opposite side. Opposite to these structures exactly facing south is a delicately attempted beautiful double storeyed royal structure, known as Rāṇi Mahal. Perhaps it might have been the main palace to house the king, his wives and the other nearest royal personages. Now it is in ruins without the roof but with only the walls extant. A motif of *Gaṇḍabhēruṇḍa* (Eagle) in stucco is worked on walls of the structure indicating the royal emblem. To the left of this palace is a connected octagonal bastion, raised quite high probably in lime with the root level of the palace, with parapet wall well plastered in which floral designs are projected in certain relief. The top of this bastion is a place of novelty giving a beautiful view point of the reservoir and the northern fort together its shadow in the still and deep waters.

Further, after the palace structure, on the left in the north another open space is thrown open, on which many structures at their plinth level alone are now remaining. At a distance of about 3/4 km. from this point a huge isolated watchtower arrests the eyes. This is known as Upli Burj. Upli Burj is about 35 m. high and about 20 m. wide in its diametre. A flight of steps 67 in numbers leading majestically to the top, is abutting the southern arc of the watch-tower. The entire length of the flight of steps is supported down below by the two hollowed arches, the first smaller and the second bigger. At the neck level of the watch tower, after a landing atop, a door leads to a passage that runs through the thickness of the bastion along its circumference. There are two decorated pillared porches one above the other overlooking again the northern fort and the reservoir. On the top of the watch tower are placed the guns on pivots, the range of which covers a distance of about 8 km. There are two sound proof cells for gun-operators to hide and take shelter at the time of boomering guns. Similar watch-towers are noticed in Bijapur fort and Malkhed fort, that bear the same name 'Upli Burj'. Of the three, the Burj at Naladurga is the tallest and strongest with elaborate and majestic architectural members.

On the right i.e. to the east of Upli Burj is a magazine where war material and equipments were kept safely. Beyond this whole complex of Upli Burj, in the north another open land in a curved manner and at a lower terrace is visible and is enclosed by the outer wall of the fort. On one of the imposing bastions on the wall here is kept a long range gun, that covers about 10 km. command area; it is known as pañcha-lōha-ka-Toph (a gun made of fire metals); it commands the north-western, northern and north-eastern sectors beyond the fort. Piercing into the eastern wall there is a small gate known as Diddi-gate.

The Dam across the rivulet

A look from the top of the Upli-Burj towards the west, along the fort wall, creates curiosity in a small opening looking like a window into the western wing of the southern fort. Being approached towards it, the window like opening grows into greater dimensions as a gate with flight of steps leading westwards on the top of the dam across the rivulet.

The dam 200 m. long 18 m. wide on top and slopping towards the bottom which is almost double the width of the top. The height is 39.50 m. The dam practically connecting the northern fort and the southern is exactly east-west oriented and forms a deep and huge reservoir in the south of it, whose waters touch almost the base of the wall of the internal side of the 'L' shaped southern fort and 3/4th periphery of the external side of the northern fort. The waters have spread in several km. upstream of the dam, that made virtually the forts of *Jaladurga* type (water fort) of Mānasāra's principles.

As one walks on top of the dam with the intention to approach the fort on the other end, his/her desire becomes a failure as there are intervening deep out-lets on the top surface for the excess water to pass through. The only way is through the thickness of the dam starting from a horizontal opening on the top surface of the dam in the eastern end. The passage is 2 m. wide all the way connected with flight of steps, many turns in it, angles, landings, water pavilions (*Pāni-Mahal*) and water mill (*Pan-chakki*). The passage of course dark, through the thickness of the dam takes one deeper and deeper at every fall of the step down to such a spot whereat the first water pavilion with arched screened, openings to let in cool breeze, over looking the down stream of the dam and the frontal deep valley, is provided. This Pāni-Mahal is situated at 3/4th height from the bottom of the dam. Further, the passage leads towards west through an opening in the pavilion further down almost to the bottom, 38 m. deep and at the middle of the dam, whereat another bigger water pavilion with decorated arches looking at the waters of the down stream and the high valley section in the north, is situated. Here one is so nearer to the whole span of down stream waters that one can see in the wavy water environs the playful fishes and other water animals. During the rainy seasons, during the fall of the waters from the top out-lets, the sheet of waters spread to the width of the whole span of outlet comes directly down and in front of this pavilion and gives an enchanting impression of a glass-sheet covering the Pāni-Mahal outside providing with most privacy and soothing coolness. It is said that it was a place of enjoyment for kings and queens. With this air of happiness on one side, when we think on the other side of the gigantic wall of waters abouts 38 m. high standing just within a few metres beyond the left wall of the passage and the pavilion, we think at once of our life and its safety.

Further from this pavilion, again through an opening in the west a passage leads us up step by step, in ascending order. After a half distance at a point within the passage a water-mill (*Pan-chakki*) is provided (now in complete ruins) to have an experimentation with hydro-energy—perhaps a very rare water engineering attempt in the medieval Deccan.

Further up, the passage leads to a certain distance whereat the third water-pavilion at the level of the first pavilion is provided keeping in view the aesthetic sense of balance in architecture. From this pavilion, the passage again with raising steps leads us to an opening through which the day light is peeping in, with a sigh of relief. By this time and distance, one is exactly at the majestic steps leading to the eastern gateway of the northern fort.

Observations

The Naladurga fort is very unique not only in the Deccan but in the whole country. The fort is basically and virtually a combination of *Sthaladurga*, *Giridurga* and *Jaladurga*. The steep valley slopes along the fort wall lead the enemy to fatal end if attempted to scale. The dam with its deep water reservoir has served in most of the length of the periphery of fort wall as unformidable and unapproachable dangerous moat for the enemy. The dam, the passage through the thickness of dam, the water pavilions, the water mill are the very rare features associated with defence architecture of the medieval history of the Deccan forts, and on the top, the dam itself is a feat in the then contemporary hydro-engineering works.

Initially a Hindu fort of the Kalyāṇa Chālukyan fame, and subsequently with major additions and substantial alterations required to suit the needs of the times, in layout, wallingo-perations and strategy, the Naladurga fort appears to be a pride Muslim fort of the medievel Deccan—now a pride protected monument of the Government of Maharashtra.

47

THE ORIGIN OF PLAYING CARDS–A NOTE

S. Mokashi-Punekar*

Those who are familiar with the Harappan script will not only recognise Harappan signs of playing cards but can give a reasonable hypothesis of the origin of the game.

"Spades" sign in Harappan is "Dwa". "Dimonds" is "Pa". If we ignore the space-filling, "Clubs" sign is "Kaa". "Hearts" is the leaf-logograph for "Ashwa" which Dr. S.R. Rao, the savant of the Harappan Script, derives from "Ashwattha". "Sh" in colloquial (Prakrit) becomes "ha" and is merely aspirated. Thus, it is equivalent of "Ahwa". It was so pronounced before Sanskritisation began.

The game is a war in which kings, queens, ministers, platoon leaders (from ten soldiers to the sole warrior) participate. Dr. P.N. Chopra has quoted Abul Fazal's statement that the game was an invention of ancient Ṛishis. In what Vedic war did Dwaa, Pa, Kaa and Ahwa participate which made so prolonged an impact as to originate a game? The "Daasharaajni" (The war of ten kings) of course. It started with the Pāñchāla (Pa) king Haihaya's attack on Kashi (Kaa) in his eagerness to possess the Gangetic Doab. He was supported by Ayōdhya kings (Awadha-Ahwa or Awa, in Prakrit). A number of Yadus of Dwarka (Dwaa), who had set up kingdoms at Māhishmatī and elsewhere, joined the fray .The war lasted through nearly ten generations. It ended when Divodasa, the king of Kashi routed Veetahavya, the king of Ayōdhya. The smaller conflicts continued for two more generations.

By Pargiter's average, the war began in B.C. 2500, the last years of Haihaya's reign. The two colours, black and red, refer to kings of Lunar and Solar races. The war began as a dispute between two lunar kings, Pāñchālas and Kashis; with other kings joining, there seems to have been a treaty between them; and the war developed as one between the Lunar and Solar alliances. Though the central power at Hastināpur did not directly intervene, it played a moderating role, and hence the concept of the "Trump" (Hukum-Mandate).

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48

INDIAN MONKS IN JAPAN

UPENDRA THAKUR*

It is really surprising to find that Japan had very little direct contact with India which actually moulded its spiritual life. This was partly because of the great distance between the two countries and partly due to immense difficulty of travelling thousands of miles by sea and hostile lands. Notwithstanding these hazards and obstacles the Japanese Buddhists managed somehow or other to establish contact with India which was to them their spiritual homeland. It has been rightly pointed out that "although the substance of Japanese Buddhism was based on the Chinese Buddhism, it was always known that Buddhism was originally an Indian religion. However, it is only in recent times that direct relations with India have been established. The name *Teṅjiku* (the old name of India) has often had an unrealistic echo (for instance, the literature of the Heian Court").[1]

As we know, Sino-Indian contacts started sometime in the third or second century B.C. with close cultural and spiritual collaboration between India and China during the reign-period of the Han dynasty (B.C. 206- A.D. 220).[2] It was Buddhism which was chiefly instrumental in bringing these two great nations still closer since A.D. 70 when Buddhism was officially recognised as the established religion in the land of Confucianism and Taoism.[3] Thus, from the beginning of the Christian era Buddhism served as a great vehicle of spiritual ideas and influenced all, spheres of life in China which was second to none in matters of highly developed language, literature, art and philosophy. And, by the fourth century A.D. Buddhism had become an inseparable part of Chinese life.[4]

In the first half of the fourth century A.D. Buddhism entered Korea from north Chinese countries where it was accepted not as an Indian religion but as the quintessence of Chinese civilisation.[5] However, Korea's close contact with Japan paved the way for the spread of this religion in that country also.[6] The Yamato Court, then the central power of Japan, received an embassy from the king of

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Packche which was accompanied by Buddhist priests together with "an image of Shaka Butsu (Śākyamuni Buddha) in gold and copper, several flags and umbrellas and a number of *Sūtras*".[7] These gifts and massages, we are told, served as "a marvellous revelation" to the people of Japan who could not conceive of any superior divinity. They were deeply impressed with the inherent message of Buddhism and its philosophy of love, equality and non-violence. They were overwhelmed by the legend of the Śākyamuni Buddha, the deified superman who attained the height of religious power, but looked after the welfare of all living beings.[8] Again it was the Korean Kingdom of Packche whence Japan received, besides *Dharma*, her first scribes, painters and calligraphers —an event which was so momentous that it was recorded in the *Nihom Shoki* in the years 463, 544 588, etc. Astrologers, landscape-architects, pharmacists, painters, bridge-builders and *bhikshus* arrived from Korea to promote the rise of *Dharma* in the land of the Rising Sun. Empress Siuko (A.D. 593) appointed her nephew Prince Shotoku Taishi, as regent who later came to be known as the Aśhōka of Japan, the consolidator of *Dharma* in Japan. Credit for constructing the Horyūji temple goes to this prince whose splendour captured the hearts of all men and evoked wonder and awe.

II

The first Indian monk to enter Korea was Malānanda[9] who is said to have come from Eastern Tsin in A.D. 394 and spread Buddhism in Pai-Chi which marked the beginning of Pai-Chi Buddhism, and "in contrast to the Buddhism promulgated by Shun-toa[10] in A.D. 372 in Kao-li, by E-Tao[11] in A.D. 374 in Hasin-lo and by others this was spread by one who was an Indian monk".[12] Though we are not in a position to determine the route followed by Malānanda for coming over to China from India, the very fact that an Indian monk reached Korea is of great significance keeping in view the eastern advance of Indian culture.

The other Indians who came to Japan very early were the Brāhmaṇa priest Bōdhisēna[13] and the Champā monk Fo-Che.[14] Indians who were Fa-tao (*Dharma-mārga*) are said to have come to Japan by way of China and Pai-Chi much before the coming of Bōdhisēna and Fo-Che, but it is difficult to vouchsafe for its historicity in the present state of our knowledge.

The early culture of Japan flowered during the Nara period of which the finest symbol is the Mahāvairōchana Buddha at Nara where Bōdhisēna had acted as the officiating priest at the time of celebrating the completion of the Mahāvairōchana Buddha which was constructed by order of the Emperor Shomu. Bōdhisēna, the Baraman Soja or the Brāmaṇa abbot, was perhaps the most remarkable monk, described in the "Succession Record of the Abbots of the Todaiji temple as a saint from South India belonging to *Bhāradvāja-gōtra* who had gone to Japan for the purpose of seeing *Gyoki* (Mañjuśrī) in the 19th year of Tenpyo (A.D. 747). Emperor Shomu and his ministers were surprised and pleased to see the learned

Indian from China and organised a party to greet him with priests, musicians and special envoys. The Brāhmaṇa priest had gone along with ten disciples including Fo-Che and Tao-hsuan and when he found Gyoki Botatsu in the procession of priests, he was overwhelmed and exclaimed : "You are the Japanese Mañjuśrī."[15] We are told that the Brāhmaṅa priest "presented to the emperor, through the kind office of Tyoki, textiles, tin-made articles, five sets of incense-burners, 100 leaves of *tālapata* or *tālapatra* (*palmyra*-leaf) manuscripts in Brāhmī writing, 2000 grains of the Buddha's body-relics and various other things which were Indian products. The Emperor distributed them to different Buddhist temples and most of them are preserved in the Shoto-in of the Genkoji temple."[16] His Indian name, Bōdhisēna, occurs in the Daianji temple (Dianji-Bodai-Deraiki).[17] In some accounts he is said to have come from Kapilavastu, was skilled in meditation and had an earnest desire to propagate the law of the Buddha. As we know, he reached Japan in A.D. 736-38 and stayed there till his death in A.D. 760. He was well-versed in the *Buddha-avataṁsaka-Mahāvaipulya Sūtra* and acted as the chief priest when the world's greatest gilded statue of Daibutsu or the Great Buddha (Buddha-lōchana or Vairōchana) was installed in the Todaiji temple in Nara and the Kigen rite (the ceremony of the "Opening of the Buddha's eyes") performed in A.D. 752.[16] This statue was modelled upon the originator of the *Hauyen Sūtra*, the Mahāvairōchana Buddha. He also taught *Amitābhabuddha* faith and Kaunyin faith, and lived in Daian-ji temple where he taught Sanskrit to his disciples. Another monk Kibi-no-Makibi who was returning to Japan from China in the same ship by which Bōdhisēna was coming to Japan in A.D. 736 learned Sanskrit language and alphabet (Dēvanāgarī) from Bōdhisēna and made use of this knowledge in inventing *kata-kana* syllabary.

In an old work of fiction in Japanese language[19] we have a brief account of the Baraman Sojo. The tales are collected under three heads : (i) Indian, (ii) Chinese, and (iii) Japanese. The Baraman Sojo figures in one of the Japanese stories, and his life-story as narrated in this tale does not differ substantially from that given in the "succession record". He is said to have resided in the Daianji temple and passed away from this world "facing westwards (towards India) with folded hands and without changing countenance" in A.D. 760, probably at the age of 56.[20] He was invested by the Imperial Court with the title of Sojo (Arch-priest) in A.D. 751. It is said that on 25 February 760 he entered *Samādhi* and his disciple Shuei (Taisho Shinshu Daizokyo) wrote on his death : "We felt as though the main prop of the house were broken and we deplored we could hear his virtuous voice no more . . . His wisdom, vast as the ocean, always pours over us without ever being dried up". The famous Todaiji temple which was consecrated by the great Brāhmaṇa bishop can be viewed even now the expressive range of Nara sculptures of Brahmā, Indra, Chatur-lōkapāla, Sūrya, Chandra, Sarasvatī and Śrī-Lakshmī which have escaped the ravages of fire which burnt down most of this celebrated temple.

Bōdhisēna's tenure of abbotship at Todaiji (temple) lasted for more than six years. This temple during this period was a great centre of learning, and specially of studies in Kegan philosophy at the time, and monks from different parts of Japan flocked here to learn philosophy and also to know more and more about India from the great Indian monk. Prince Shinnyo, son of Emperor Heizei or Heijo, is said to have studied Buddhism at this temple after becoming monk.[21]

The Champā monk Fo-che or Fo-Tieth who come to Japan with Bōdhisēna was probably "a native of ancient Champā that lay in India in the modern Bhagalpur region on the southern bank of the Ganges".[22] He also lived in the Daianji temple, wrote a book on Sanskrit alphabet, and composed religious dances representing themes drawn from Indian mythology.[23] He is also credited with having transmitted Champā music. These religious dances and the accompanying music have been faithfully preserved in their original form in the royal court of Japan although they are completely unknown to the Indians now. "It is a unique cultural asset found only in Japan and it is one of the wonders of the world. . . The formal stage for this art is found only in the Imperial Palace. The names of some pieces of music can be traced to Indian originals; for instance, Bosatsu is the Japanese corruption of Bodhisattva, *Bairo* of Bhairava, *Karyobin* of Kālaviṁka, a monorous sweet-voiced bird".[24] In fact, these two Indians, who in the Nara period travelled so far as to reach Japan, contributed a great deal by imparting the richness of Indian culture to Japanese culture. The Japanese legends further speak of one Indian monk, Hodo who is said to have gone over to Japan in the time of Emperor Kokotu (A.D. 645-54) from Rājagṛiha. But, unfortunately we have no details of his activities there.

Of the Indian monks who acquired the greatest distinction not only in China, but also in Japan, was Bōdhidharma,[25] who is said to have been a prince from Kāñchīpuram in South India. He reached China in the time of emperor Wu-ti who is also credited with having invited Paramārtha, another great Buddhist monk from Ujjain in North India, in the middle of the sixth century A.D. He passes for a semi-mythical figure in the history of Buddhism in Central Asia because of his miraculous practices which still form a favourite theme of the Chinese artists. We are told that his arrival in China was an important epoch in its religious history. The form of Buddhist doctrine that the most prevalent in China was the teaching of the practice of morality as the means of deliverance, but now he introduced the full-blown mysticism which had developed in India. He is said to have spent nine years in meditation facing a wall which earned for him the nick-name "wall-gazing Brāhmaṇa". The form of religion which he preached was known as *Cham* in China and *Zen* in Japan where also he preached his religion subsequently. He was so much revered that he came to occupy the twenty-eight place in the list of Chinese apostles, and temples were constructed in his honour both in China and Japan where he popularly came to be known as *Daruma* or *Dharma*.

Prajñā was yet another great Indian monk who, though he did not visit Japan, nevertheless exercised tremendous influences in moulding Japanese culture through his great disciple—Kukai. Kukai was the most celebrated Buddhist priest of Japan who had studied Sanskrit in China between A.D. 804 and 806 from Prajñā—who was then staying in China. A Kashmirian *āchārya*, Prajñā had gone over to China in the begining of the ninth century. He radiated the divine spark, the light of intellectual knowledge and psychic experiences, as his very name implied. His masterly knowledge of Sanskrit was reflected in the Chinese translation of Sanskrit works. In A.D. 805, on a spring day, in the famed metropolis of Ch'ang-an stood a young monk from Japan whom the Shingon chronicles describe as "a young man with a broad forehead, well-shaped eye brows and intelligent look, who listened silently to the discourses of his aged *Guru*". This young man was *Śramaṇa* Kukai who later became famous in Japan as Kobi Daishi. He had left his homeland in quest of an integrated vision and a rich, pure experience, of the esoteric doctrine of *Mantragaṇa* of shingon, 'the true word', which was the culmination of Buddhism, a new horizon and a paradigm of new universe, grounded in the fundamentals of *mantras*. The power, the wonder of the *mantra* lay in its meditational realisation, and its correct enunciation as a written symbol. The letter shapes reflected the spans of inner space. Thus, the script used for the *mantras* was not purely a writing system, but a visual medium of an intrinsic dimension. Kobo Daishi was initiated by the Kashmiran *āchārya* into the Nāgarī script (proto-Gupta) of the period, designated by the Japanese tradition as *Shitton*, a corruption of the Sanskrit word *Siddham*. To this day the Japanese have written *mantras* in artistic *Siddham-Nāgarī*, the contribution of Kashmir for evoking the cosmic consciousness. The form of Nāgarī has a calligraphic charm of its own, in expressive curves and subtle linear nuances of the brush or in study and dynamic strokes of the wooden styles bringing out its innate aesthetics.

It was the indirect influence of Prajñā's scholarship and divine spark that inspired a number of Japanese monks to learn Sanskrit language in which the Buddhist *mantras* were written.[26] Of them Annen was perhaps the most remarkable scholar of the ninth century who wrote a Sanskrit glossary, named *Shittonzo* in eight volumes. We are told that the "fifty sound syllabary pattern of *a*, *i*, *u*, *e*, *o*, which is used even now in Japan, was an imitation of the order of letters in Sanskrit",[27] introduced by Annen and those of this school. As in Cambodia and many other countries of South-East Asia, so in Japan also, Sanskrit language was intensively studied which in turn considerably inspired and influenced the Japanese language and literature. Its impact was so abiding that many words in Japanese language are considered to be of Indian derivation, such as *Zou* (Skt. *Dhyāna*), *biwa* (Skt. *Vīṇā*), etc. The Japanese people in general are quite familiar with the Indian *siddham* letters, although they have no knowledge of Sanskrit. In fact, we often come across wooden tablets written in Shitton (i.e. *siddam*) letters in the Japanese cemeteries and in temples inscriptions beneath the image of the Buddha, the Bōdhisattvas and other divinities.[28]

Thus, Kukai's personal contacts with the great Kashmirian *āchārya*, Prajñā were to produce a profound effect on the cultural evolution of Japan. After his return to Japan from Korea he spread education to the common man which was then restricted to the privileged classes, and only children of the families above the fifth rank could attend academics and universities. He established a new institution—the institution of General Arts and Wisdom(*Shugei-Shuchi-in*)for children of all classes. The courses were both secular and sacred, and to democratise and propagate literacy he also invented a Syllabary of Fifty-Sounds(*Goju-on*)noted above, of which the basis was the Sanskrit language which he had learnt from his *Guru*. He further wove the entire alphabet into a poem, called *Iroha*, based on the *Mahāparinibbāna Sūtra*[29] This new syllabary was a revolutionary step in Japan's civilization for what was hitherto the perogative of the privileged few became the potential privilege of all. In A.D. 1126 zen-nin, the outstanding Tendai calligrapher of *Siddham Nāgarī* wrote *mantras* for the emperor.

From an old account we learn how Shinnyo Noshinno (priestly Imperial Prince) or Takao Kashinno who was third son of Emperor Heijo, made strenuous efforts to reach India as a pilgrim but could not succeed in his mission. He made extensive study of the religious canons and attained a very prominent place in Shingon sect. His quest for religious knowledge ultimately brought him to T'ang China in A.D. 861 whence he proceeded on the journey to India three years later at the age of seventy. "From the region of Chukiang he traversed the mountain area of Yunnan and entered Laos" where he is reported to have been "eaten by a tiger".[30] Following him another monk, named Eisai tried to travel to India in the Kamakura period. Founder of the Riuzai sect in Japan, he was another great personality who was widely respected in the Japanese religious world. In A.D. 1168, he went to Sung China and stayed there for five to six months, but realising the importance of the first-hand study of Buddhism he sought permission from the authorities to travel to India, but he was not permitted to go by the South Sea route and had to give up his proposed journey.[31]

Notwithstanding these failures, the Japanese monks constantly endeavoured to India. Eisai was followed by Myoe Shonin Koben of Taganoo who was responsible for reviving the old Kegan tradition. Since his childhood, he had nourished a dream to visit India, and around A.D. 1203-05 he made a special study of the travel diaries of Hiuen Tsang in order to achieve his desired goal. He spelt out a detailed plan, made exact calculations of distance and time and date when he would reach India after completing his journey, but unfortunately he too had to cancel his journey owing to illness.[32] According to legends current in Japan, many other monks tried to go to India but could not succeed in their endeavour. Shimaji was the first Japanese Buddhist monk who was able to reach India on pilgrimage in 1873.[33] Perhaps the most potent cause of the failure of the Japanese to come to India was the Japanese sea-men's lack of knowledge of the monsoon winds which was possessed by most Chinese sea-men of the T'ang dynasty. In any case, "a cultural intercourse between Japan and India could not be started, such as commenced between India and China after Fa-hsien's pioneer pilgrimage to India overland".[34]

When successive attempts of the Japanese monks to come to India to learn the language and the teachings of the Buddha failed, they devised another method to achieve their objective. They visited China one after another and made thorough and extensive study of the Sanskrit and Chinese languages to have a deep knowledge of the philosophy and teachings of Buddhism which were preserved in these languages in China. The Japanese zeal for learning Sanskrit language kept alive "the Sanskrit lore in Japan for nearly 1400 years in the colleges attached to the great Buddhist temples".[35] The Japanese monks also carried some Buddhist texts to their countries and preserved them which "must have been brought from India or Central Asia to China and thence to Japan".[36] Significantly most of these manuscripts preserved in Japan are much older than their counterparts now available in India. It is no exaggeration to say that besides the recently discovered manuscripts in Eastern Turkistan, "the oldest Indian manuscripts are to be found in Japan belonging to the first half of the sixth century".[37]

Thus, despite the great distance and natural barriers between India and East Asian countries, cultural exchange on such a large scale is truly a fact in world history that merits admiration. By means of this fact we can understand how an East Asian world, with its centre at T'ang, came into being, and through the mediacy of Buddhist culture went on to become linked into a unity. In a sense "Japan may be said to owe every thing to India, for from India came Buddhism, and Buddhism brought civilization—Chinese civilization; but then China had been far more deeply tinged with the Chinese themselves."[38] It has been rightly pointed out that the question of Indian influence on Japan is "vast and somewhat obscure"[39] of which no proper assessment has been attemped so far.

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KṚISHṆA AND KṚISHṆAISM ACROSS INDIA

B.N. Puri*

The Kṛishṇa saga is confined not to Indian art and literature alone; it could be traced to sources outside India testifying to its popularity in those regions. The earliest reference to Kṛishṇa in India is recorded in the *Chāndōgya Upanishad,*[1] supposed to be a pre-Buddhist work, mentioning the sage Kṛishṇa-Dēvakī putra (i.e. Kṛishṇa, son of Dēvakī) who was a disciple of the Ṛishi Ghōra of the Āṅgīrasa family. Kṛishṇa is not called Vāsudēva in this work, and some scholars doubt the identity of the Kṛishṇa-Dēvakīputra of the above mentioned Upanishad with Kṛishṇa, son of Vāsudēva by Dēvakī of the Yādava-Sātavata-Vṛishṇi race, as noticed in the *Mahābhārata*, especially in its early stratum,[2] and the Purāṇas as well as in works like Ghāta Jātaka and Patañjali's *Mahābhāshya.*[3] The evidence provided by the *magnum opus* of Patañjali is conclusive on the point of identity of KṛishṇaVāsudēva. It associates Śaṅkara-Saṅkarshaṇa (Baladēva, son of Vāsudēva by Rōhiṇī) in such passages as *Saṅkarshaṇa-dvitīyasya balam Kṛishṇasya Vardhatām*, as also in his reference to popular dramatic representation of the life story of Vāsudēva-Kṛishṇa with reference to Bali-bandha and Kaṅsabandha episodes. He actually quotes passages like *asādhur mātula Kṛishṇa* and *jaghāna Kaṁsāni kila Vāsudēvaḥ*. These references are quoted here to suggest votaries of Kṛishṇa-Vāsudēva and the popularity of his cult in northern India in the time of Patañjali, roughly in the middle or the last quarter of the second century B.C.

The external evidence on the Kṛishṇa cult seems to be still earlier. Vāsudēva or Kṛishṇa is mentioned by the Greek writers Megasthenes and Arrian under the name of Heracles.[4]. The Greek ambassador to the Mauryan court informs us that Heracles was worshipped by the inhabitants of the planes, especially by the Surasenoi, an Indian tribe, and possessed of two cities, Methora (Mathurā) and Kleisbora (Kṛishṇapura) with a large navigable river, Jabanes (Yamunā) flowing through their territories. The famous Besnagar inscription of Heliodoras[5] of the late Śuṅga period equally testifies to the prevalence of *Bhāgavatism* at that time and its acceptance even by the foreigners. This Greek who came as an ambassador from the court of the Indo-Greek ruler Antialkidas to that of Bhāgabhadra could not have been ignoramous about the Kṛishṇa-Bhāgavata cult in North-Western India. While Aśoka had sent his emissaries to propagate his ideals of *dhamma* to the countries of his Yavana contemporaries, it is equally likely that the Bhāgavatas, too, were not slow in their missionary activities.

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In this connection reference might be made to the prevalence of Kṛishṇa cult in the territories of the Armenians. According to Zenob,[6] two Indian rulers Gisena (Kisena-Kṛishṇa) and Dimeter had sought shelter in the court of the Armenian ruler Balaraksha roughly about 150 B.C. Fifteen years later they were murdered. Their descendants got two temples of their deity-Gisena—probably Kṛishṇa, and Dimeter constructed over there. It was suggested by Kennedy,[7] that Demeter stands for Dēvamitra and Kisane could be identified with Kṛishṇa. It is likely that the deity associated with Kṛishṇa called Demeter might be Baladēva. It is proposed by P. Banerji that the story of the flight of Gisane and Dēvamitra might be reminiscent of Kṛishṇa and Balarāma's flight to Dvārka from Mathurā because of the pressure of their adversaries, and this story possibly went outside and got mixed up with a local legend in Armenia.

Some more information about the existence and prevalence of Vaishṇavism across the Himalayas is furnished by some latest discoveries. A fragment of Kharoshṭhi inscription discovered by Berustham[8] in Tajikistan in 1956 mentions "Nārāyaṇa be victorious" as translated by Harmata. On palaeographic grounds the inscription might be placed in the second century B.C. If Nārāyaṇa could be associated with Vaishṇavism, as is not unlikely, then the popularity and prevalance of Vaishṇava cult in Central Asia in the second century B.C. stands confirmed. Nārāyaṇa also occurs on a Garuḍa in a Tun-huang[9] painting. There is also an interesting seal first noticed by Cunningham which bears an inscriptions, correctly deciphered by Ghirshman[10] as referring to the names of Mithra, Vishṇu and Śiva. This is in Tucharian script and the devotee, according to the French archaeologist, is not the Kushoṇa king Huvishka, but some unknown Hepthalite chief. Further, vaishṇava influence is also noticeable on a Buddha image from Balawaste no the silk route of Eastern Turkestan. Here the artist has tried to depict the Viśvarūpa aspect of the Buddha on the model of the Viśvarūpa of Kṛishṇa.[11]

Besides Central Asia, Kṛishṇa and Kṛishnaism were well-known in South-East Asia, as is evident from the famous Hindu monuments from Champā (modern Vietnam), Kambuja (modern Kampuchia) and Java (modern Indonesia).[12] Inscriptions and sculptural pieces, as also religious and secular literature equally provide valuable information which might be presented chronologically in an analytical manner. Java-especially the temples from Panamtaram, and the famous sculptures and statues from Eastern Java, provide interesting information about Vaishṇavism in general, and Vishṇu in different incarnations. The divine concept of Vishṇu was well-known in Indonesia from fairly early times. The earliest figure of Vishṇu is in gold, a small four-armed figure holding a discus, conch shell and mace in three hands, while the fourth-one is in varamudrā. It was recovered from Mugra-Kaman in the Kutei province of Borneo. One of the inscriptions of Pūrṇavarman, the ruler of Tarumā in western Java (c. A.D. 450) refers to the foot prints of Vishṇu (*Tarumānagendrasya Viṣṇor-iva padābhyām*).[13] The famous Changal inscription[14] dated in the Śaka year 654 also eulogizes Vishṇu, living in a bed of water with 'the goddess Śrī, his eyes like those of lotus petals through meditation, and praised by the gods for protecting them. The typical description of Vishṇu in his *ananta-śayana* posture was well-known in the eighth century A.D. as is evident from the sculptural finds in Java as well as in Kambuja and Champā.

Both the artists and the authors seem to have been cognizant of the different incarnations of Vishṇu-Rāma (from Rāmāyaṇa), Kṛishṇa from Kṛishṇāyana, the Man-lion (Narasiṁha), Boar (Varāha), Fish (Matsya) and Tortoise (Kūrma).[15] Of these the first four are beautifully depicted by the artists in sculpture and statues carved in stone. Sometimes there are two female figurines on two sides of the divinity, generally known as Lakshmī and Satisvamā (Satyabhāmā) in Bali.[16] This divinity might be Krishṇa with his consorts Rukmiṇī and Satyabhāmā. In the temples in the Pramban valley two images represent the Vāmana or dwarf, and Narasimha incarnations of the deity.[17] The sculptures on the inner side of the balustrade of the Vishṇu temple depict episodes from the life of Kṛishṇa. The incarnation of Vishṇu as Kṛishṇa and the episode connected with his life are also noticed in Indonesian art and literature. The *Kṛishṇāyana* by Triguṇa (dated in the beginning of the Kadiri period)[18] deals with the famous episode of the abduction of Rukmiṇī by Kṛishṇa and his subsequent fight with Jarāsandha. This poem supplied the themes for the sculptured reliefs in the temple of Panamtaram. Other works that provided the theme of the Kṛishṇa legend are *Harivamsa* by Mpu Panuluh who also wrote and completed Bhāratayuddha during the reign of Jayabhaya. The death of Kṛishṇa and the destruction of his family forms the theme of Kakawin's *Kṛishṇāntaka*.

Kṛishṇa's story in art is best illustrated at Chandi Jago.[19] The lower part of temple is decorated with scenes from Kṛishṇāyana while at Chandi Kedon some of the relics illustrate scenes from the story of Sambas, as told in the *Bhorṇkāya*. At Chandi Panataram,[20] Kṛishṇa is seen eloping with Rukmiṇī followed by her brother Rukma. The artists were familiar with the life activities of Kṛishṇa, since we find Triguṇa in his *Kṛishṇayana* recording this episode of the abduction of Rukmiṇī and his consequent fight with Jarāsandha. The poem contains a description of Dvārakāvati, the capital of Kṛishṇa, and gives the names of 10 out of his 16000 wives. This is the theme of sculptured reliefs of the temple of Pantaram.[21] The same episode is also recorded in another poetical work *Harivaṁśa* by Mpu Panuluh in the reign of Jayabhaya. Scenes from *Kālavayanāntaka*-based on the story given in the Vishṇu Purāṇa—are also depicted on the inner side of the balustrade in the Vishṇu temple in the Prambanan valley.[22] This refers to the invasion of Dvārakā by Kālayavana to avenge the death of Kaṁśa.

We need not refer to the statues of Vishṇu including that of Vishṇu Airlanga from Belhan, now in the Djakerta Museum, sitting on a Garuḍa, with his two consorts Lakshmī and Śrī signifying fertility and wealth, as also of other statues of this god from Indonesia or from Indo-China. The scenes from Angkor-vat depict Kṛishṇa holding Gōvardhana. The Kambuja records also mention the setting up of statues of Vishṇu, and some also refer to the activities of Kṛishṇa.[23] An inscription from Champā[24] also records the activities of Kṛishṇa, lifting the Gōvardhana and destroying the demons and accomplices of Kaṁśa. Some of the rulers like Jaya Harivarman of Champā, called themselves the incarnation of Vishṇu.

A study of the data available from diffrent sources would no doubt reveal the prevalence, popularity and worship of Vishṇu in different incarnations in south-east Asia. Literature and Art suggest the assimilation and familiarity of Vaishṇavite ideals and practices and icons of divinities connected with this cult. It would appear that Kṛishṇa saga—the life story of the cowherd boy-was well-known, especially the destruction of Kaṁśa and his entourage, the lifting of Gōvardhana, the abduction of Subhadrā, association with the Pāṇḍavas and participation in the Bhārata war, the flight to Dvārakā and attempts to sack it and finally his death. These formed the subject matter of literary and artistic creative activities, which lasted for well over a thousand years.

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4. Frag. XLI. See also Sastri—*The Age of the Nandas and the Mauryas*, p. 305. He also quotes Curtius who informs us that 'an image of Heracles was carried in front of the enemy of Porus as he advanced against Alexander', p. 305.
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11. The body and the arms of the figure are covered with symbols or devices including the Śrīvatsa diamonds, mandāra as churning rod, horse uchchaihsrava indicative of the story of the churning of the ocean, the sun, the moon, Vajras, manuscripts, triangles and circles. These symbols point to Vaishṇava or Krishṇite influence on the Buddha model (Banerji, *op. cit.*).
12. The information supplied is based on my paper 'Archaeology and Vaishnava tradition in Indonesia' published in L.N. Misra Volume, pp. 154 ff. as also my book in Hindi '*Sudūr purva me Bhartiya Sanskriti aur Itihasa*' (1963), See also R.C. Majumdar, Suvarnadvita, Vol. II dealing with the cultural History and also Kempers, *Early Indonesian Art.*
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18. According to Coedes, in the reign of Jayavarsha Digh Sastaprabhu, of whom an inscription is dated in the year 1104, Tṛiguṇa composed the *Krishnāyana*, an epic poem relating to the legend of Chandi Jago and of Panamtran. (*Etats Hindouis*, etc., p. 268).
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THE DATE OF THE GURUSAMHITĀ

LALLANJI GOPAL*

The *Gurusamhitā* is a Sanskrit text on climatology and weather-forecasting. It has not been printed so far and is known through a single manuscript (No. 34725) in the Saraswati Bhavan Library of the Sampurnanand Sanskrit University, Varanasi. It contains 61 sheets of the size of 6″×8.2″.

The credit for bringing this text to the attention of the scholars goes to Dr. Dhumirama Tripathi. Earlier studies on the subject, including *Agriculture in Ancient India* published by the Indian Council of Agricultural Research[1] and Maya Prasad Tripathi's *Development of Geographic Knowledge in Ancient India*[2] do not take any notice of this manuscript. Dr. Tripathi in his doctorate thesis (for Vidyāvāridhi)[3] quotes profusely from this manuscript to describe the development of the science of climatology in ancient India. But he does not subject it to a critical analysis to determine its age and authorship.

We have some indications which suggest rough brackets for the date of the text. It quotes Varāhamihira, the great authority on astronomy, on two occasions, once under the shorter name Varāha.[4] There are some other passages also which have been taken from the *Bṛihatsamhitā* of Varāhamihira, though the borrowing has not been acknowledged.[5] It is clear that the text belongs to a period by which the reputation of Varāhamihira as an authority on astronomy had been firmly established.

On the question of the contact between Bhaṭṭōtpala and our text we cannot make a definite assertion. The fact is that neither shows any awareness of the other. The absence of a reference to Bhaṭṭōtpala in the *Gurusaṁhitā* is not any indicator of the latter's date of composition. Bhaṭṭōtpala is only a commentator and not an original authority with his own new views on the astronomical questions. His commentary is naturally in prose and he does not express his views in verses. The *Gurusaṁhitā* is not a compendium or digest in which the views of all the

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authorities were expected to be recorded. The text presents in verses information about forecasting of rainfall and, wherever convenient, quotes or borrows from other reputed authorities. Thus the occurrence of the name of Bhaṭṭōtpala in the *Gurusaṁhitā* was not required by the nature of the later text and hence we cannot argue on the basis of this negative evidence that the *Gurusaṁhitā* is to be necessarily placed before Bhaṭṭōtpala.

The matter of Bhaṭṭōtpala not quoting from the *Gurusaṁhitā* stands on a slightly different footing. Bhaṭṭōtpala profusely quotes from numerous authorities and texts known to him, some of which are not available now or are not known from any other source. Normally it would be expected that if the *Gurusaṁhitā* had been composed before Bhaṭṭōtpala, he would have referred to it or quoted its view in the relevant context. This would support the suggestion that the *Gurusaṁhitā* is to be placed in a period after Bhaṭṭōtpala wrote his commentary. We may consider the possible rejoinder that Bhaṭṭōtpala possibly avoided referring to the *Gurusaṁhitā* because it was written not long before his own time and had not been recognised as an authoritative text and because he had greater and more established authorities to refer to. It is to be admitted that the argument has some force in it. But, it may be pointed out that Bhaṭṭōtpala refers to all sorts of authorities, great and small, and hence the absence of a reference to the *Gurusaṁhitā* cannot be dismissed as being without consequence, particularly because the *Gurusaṁhitā* has its own views on many points and because there are contexts in the commentary of Bhaṭṭōtpala where they could have found a reference.

In the light of the above discussion we can infer that the *Gurusaṁhitā* was written after Varāhamihira and possibly also after Bhaṭṭōtpala.

Among the ancient authorities specifically named and quoted, the name of Vasishṭha occurs in verse 208.[6] Here we have a clear reference to verses written by Vasishṭha. It unequivocally says that the four verses following verse 208[7] are quotations from a work composed by Vasishṭha. Among the texts known under the name of Vasishṭha the *Vasishṭha-dharmasūtra* is very well known. The India Office Library[8] possesses a *Vasishṭha-smṛiti* in ten chapters (*adhyāvas*). It seems to have been a later work as it concerns the religious observances and duties prescribed for a devotee of Vishṇu. There seem to have been some earlier Smṛiti texts under the name of Vasishṭha, but to distinguish them from the *Vāsishṭhadharmasūtra* they were circulated with the adjective *Vṛiddha* or *Bṛihad* prefixed to the name of Vasishṭha.[9] Bṛihad-Vasishṭha is quoted in the Mitāksharā.[10] Quotations from Vṛiddha-Vasishṭha occur in Viśvarūpa (on *Yāj.*, I. 19), Vijñānēśvara (on *Yāj.*, II, 91, III. 20, 311), Lakshmīdhara (*Kṛityalpataru*, Dānakāṇḍa, p. 189) and Devaṇṇabhaṭṭa (*Smṛitichandrikā*).[11] These texts apparently covered topics generally treated in the Smṛitis. There is no likelihood of passages dealing with prognostication of rainfall occurring in these texts.

There are indications that Vasishṭha was considered to be an authority on astronomy as well and a text on the subject circulated under his name. Dēvaṇṇabhaṭṭa[12] has cited a few verses from a *Jyōtir*-Vasishṭha. The *Bṛihad-Yogayātrā* recognises Vasishṭha as a regular authority and refers to his characteristic views on some important topics.[13] Ṛishiputra, an ancient authority on astronomy, as quoted by Bhaṭṭōtpala,[14] refers to the views of Vasishṭha.

But the quotations from Vasishṭha in our manuscripts are not of much direct help in determining its date. The author does not borrow the verses 209 to 212 directly from Vasishṭha. Actually he takes them as also verse 208, introducing the name of Vasishṭha, along with the preceding four lines[15] from Varāhamihira's *Bṛihat-saṁhitā*,[16] though without acknowledging the source. In any case it is clear that the text of Vasishṭha was available to Varāhamihira and was known to his commentator Bhaṭṭōtpalā.[17] This will place Vasishṭha quite some time before Varāhamihira to provide for his reputation as an authority to settle down. For us this is not very helpful in fixing the time-bracket for our text. As the verses in question are taken from the *Bṛihatsaṁhitā* we can only infer that our text is of a period after Varāhamihira and possibly also after Bhaṭṭōtpala.[18]

There are two sets of views about the date of Varāhamihira; one places him in the first century B.C. and the other towards the close of the fifth and the beginning of the sixth century A.D.

The *Jyōtirvidābharaṇa*, attributed to Kālidāsa, mentions Varāhamihira as one of the nine gems at the court of Vikramāditya[19] who is reputed to have founded an era in B.C. 57. The *Kutūhalamañjarī*, which places Varāhamihira's birth in the year 3042 of the Yudhishṭhira era[20] (=B.C. 60), supports this tradition. But the *Jyōtirvidābharaṇa* is a late foregery. The tradition about the nine gems of Vikramāditya is totally confused and gives a muddled chronology.[21] The defect in the *Kutūhalamañjarī* verse has been pointed out by S.B. Dikshit.[22]

Varāhamihira's own work, the *Pañchasiddhāntikā*,[23] gives Śaka 427 Chaitra *Śukla pratipada* as the epoch. When assigned to the Śaka era, beginning in A.D. 78,[24] it corresponds to March 21, A.D. 505.[25] Al-Bīrūnī also places the composition of the *Pañchasiddhāntikā* in A.D. 505.[26] A tradition preserved by the astronomers of Ujjayinī[27] gives Śaka 427 (=A.D. 505) as the date for Varāhamihira. Āmarāja, the commentator of Brahmagupta's *Khaṇḍakādyaka*, says that Varāhamihira died in Śaka 509=A.D. 587.[28] This provides a rough approximation to the date A.D. 505 known from other sources. If A.D. 505 is taken to be the date of the composition of the *Pañchasiddhāntikā*,[29] we have to postulate a life of about 105 or 110 years for Varāhamihira. Hence scholars, according to their convenience, have either rejected the statement of Āmarāja[30] or associated other events with A.D. 505[31] and shifted forward Varāhamihira's date of birth.[32] In any case, Varāhamihira can be taken to have flourished about the date A.D. 505. It could have been the date of his birth or of the composition of the *Pañchasiddhāntikā*. In the latter case we have either to reject the testimony of Āmarāja or else to accept an unusually long life for Varāhamihira. Even if Āmarāja is to be believed, there is no unsurmountable difficulty as such a long life is not inherently improbable.

There are two brackets which considerably reduce the upper and lower limits for the date of Varāhamihira. Varāhamihira quotes the opinion of Āryabhaṭa[33] who was born in Kali 3600[34]=Śaka 398=A.D. 476. Kalyāṇavarman, the author of *Sārāvali*, who is to be placed between A.D. 650 and 725,[35] acknowledges his indebtedness to the Horātantra written by Varāhamihira.[36] Further, a manuscript of the *Bṛihatsaṁhitā* in the Vir Library, Kathamandu (Nepal) claims to have been copied in (Vikrama) Saṁvat 658 (=A.D. 601).[37] Thus Varāhamihira flourished after A.D. 476 but long before A.D. 601 for his work to gain reputation for being copied in Nepal. For our purposes the evidence noted above places Varāhamihira in the last quarter of the fifth and the first half of the sixth century A.D.[38] which is supported by the internal evidence of the *Bṛihatsaṁhitā* pointing to the Gupta and late Gupta periods.[39]

The date of Bhaṭṭōtpala is more definitely known. He himself says that his commentaries on the *Bṛihatsaṁhitā* and *Bṛihatjātaka* were completed in Śaka 888[40]=A.D. 966. The tradition about important authorities on astronomy as preserved by the astronomers of Ujjayainī[41] places Bhoṭṭōtpala in Śaka 890—A.D. 968. This ideally suits the date given by Bhaṭṭōtpala himself. Thus Bhaṭṭōtapala has to be assigned to the second half of the tenth century.

The *Gurusaṁhitā* makes the largest number of references to Garga. In these verses we have a clear mention of the opinion of Garga.[42] In verse 238[43] the sage (*muni*) whose opinion is referred to is most likely Garga. The entire section on *Kētuchāra* (verses 397 to 427) seems to have been borrowed from Garga. This is made quite clear by the opening[44] and closing[45] verses of the section. Likewise, the verses 430 to 441, dealing with the results of the rainfall during Saṅkrānti, contain the words of Garga addressed to Indra. This is specifically mentioned in verse 438.[46] The following three verses are introduced as the utterances of Garga.[47] In both the groups of verses (397-427 and 430-441) we have a clear mention of Indra (*devarāṭ*) as being addressed by Garga.

Garga is respected in Indian tradition as a sage. He was one of the five sons of Vitatha.[48] In the *Nityāchārapradīpa*[49] both Garga and Gārgya are mentioned separately as authors of Smṛitīs. But as a *dharmaśāstra* writer Gārgya is more important than Garga. Parāśara[50] and Vṛiddha-Yājñavalkya[51] mention Gārgya as a writer on *dharma*. From quotations in the later commentaries and digests[52] this work of Gārgya seems to have been in verse, though a *sūtra* of Gārgya is quoted by Viśvarūpa.[53] The *Smṛtichandrikā*[54] quotes a Bṛihad-Gārgya. There was possibly another text which was named after Vṛiddha-Gārgya[55] to distinguish it from Gārgya's work. Most likely this second text of Vṛiddha-Gārgaya was in the form of a *dharmasūtra*.[56] But these works of Garga, Gārgya, Vṛiddha-Gārgya and Bṛihad-Gārgya belonged to the category of *dharmaśāstra* texts and do not seem to have much to do with topics falling under astronomy.

There is independent evidence for Garga as an authority on astronomy and for the availability of separate texts on astronomy under his name. Here also the name occurs under several varients Garga, Gārgya, Vṛiddha-Garga and Gārgī. The

Smṛitichandrikā[57] quotes a *Jyōtir-Gārgya.* Aparārka quotes several verses of Gārgya dealing with astronomical questions.[58] But we cannot be sure if this work is identical with the *Jyōtir-Gārgya.* Garga is respected as one of the ancient sages who are connected with the birth of astronomy as a science. The *Mahābhārata* records the tradition about Garga acquiring on the banks of the Sarasvatī astronomy and its different branches.[59] Three verses, ascribed to Garga himself,[60] say that Brahmā (Svayambhū) himself created Vēdāṅgajyōtisha; from him Garga received the science of astronomy, and from Garga the other sages in turn obtained it and composed their work on it. The *Bṛihatsaṁhitā* respectfully mentions Garga as one of the ancient authorities on astronomy and refers to his peculiar views on different subjects.[61] The astronomical work of Garga is not available, but it was definitely known to Bhaṭṭōtpala who quotes in his commentary on the *Bṛihatsaṁhitā* alone more than three hundred verses of Garga including the introductory ones. Bhaṭṭōtpala[62] quotes six verses from the *Mayūrachitraka* of Garga. Though sometimes Garga and Vṛiddha-Garga were mixed up,[63] the two were different authors.[64] Bhaṭṭōtpala himself reproduces more than seventy verses of Vṛiddha-Garga in his commentary on the *Bṛihatsaṁhitā* alone. What is significant is the fact that at places Bhaṭṭōtpala quotes both Garga and Vṛiddha-Garga together.[65] A third name in this connection is that of Gārgi. He is not quoted by Bhaṭṭōtpala even once in his commentary on the *Bṛihatsaṁhitā*,[66] but his aoubt sixty verses are reproduced by Bhaṭṭōtpala in his commentary on the *Bṛihatjātaka.* Kern[67] got an incomplete manuscript of *Gārgisaṁhitā* dealing with astronomy and astrology. We cannot be sure if all these authors were the same.[68] There is not clear indication to fix their dates.[69] The way Varāhamihira refers to Garga, the respect paid to him and his views, his established reputation and the long tradition in astronomy he had built up show that he wrote his work on astronomy several centuries before Varāhamihira.

But the question is whether we can identify Garga mentioned in the *Gurusaṁhitā* with Garga quoted by Varāhamihira and Bhaṭṭōtpala. It is clear that the author of the *Gurusaṁhitā* means to refer to the views of Garga, the famous sage who is traditionally respected as a great authority on astronomy. We may, however, note that none of the verses attributed to Garga in the *Gurusaṁhitā* can be traced among the large numbers of verses quoted by Bhaṭṭōtpala and other writers from the astronomical text composed by Garga. It can always be argued that this negative argument does not have a fully exhaustive applicability as we cannot rule out the possibility that the verses of Garga occurring in the *Gurusaṁhitā* could not by chance to be quoted by Bhaṭṭōtpala. But considersing the large number of verses covering a wide range of topics, some of which are contextually akin to the scope of the *Gurusaṁhitā*, the absence of the *Gurusaṁhitā* verses in other texts cannot be explained as mere coincidence. Hence it will not be reasonable to assign to the verses attributed to Garga in the *Gurusaṁhitā* the same date to which the famous astronomer mentioned by Varāhamihira and Bhaṭṭōtpala belonged.

As the evidence stands, we can suggest that there was possibly some other text attributed to Garga which dealt with weather-forecasting. It need not have been the original work of the famous astronomer Garga himself. It was possibly written by some later writer who used the name of Garga to gain wider currency for his work, It could have been an Independent text or a part of a larger work. We cannot make any definite suggestion about the date of this later work of Garga used by the author of the *Gurusaṁhitā*. Possibly it did not enjoy any high respectability among the astronomers and hence has not been quoted by other authorities. If the absence of any quotation from it in the commentary of Bhaṭṭōtpala is any indication, it has to be placed after the date of the completion of this commentary (Śaka 888=A.D. 966).

Besides the authorities mentioned above, the *Gurusaṁhitā* quotes the *Mayūrachitraka* once[70] and also verses from other works without naming them, introducing them as *anyachcha*,[71] *anyachcha granthāntarā*[72] or *uktañcha granthāntarē*.[73]

Mayūrachitraka is the title of a chapter in the *Bṛihatsaṁhitā*.[74] The title was very popular and was adopted for several texts dealing with weather forecasting, particularly rainfall.[75] Bhaṭṭōtpala attributes one *Mayūrachitraka* to Garga.[76] There is a printed *Mayūrachitraka* ascribed to Varāhamihira.[77] The *Adbhutasāgara*[78] also quotes a *Mayūrachitraka*. There are many manuscripts with this name.[79] Two such manuscripts are attributed to Nārada.[80] As things stand, it is difficult to identify the *Mayūrachītraka* from which the *Gurusaṁhitā* has borrowed the verses in question. The three verses immediately preceding the experssion *iti Mayūrachitrakē* (113b to 116a) occur in the *Mayūrachitraka* (103 to 105a) with slight variations including the dropping of 115a. It is to be noted that the readings of these verses in the *Mēghamālā*[81] are closer and have even line 113a, though it occurs after line 116a.

In the case of the unnamed texts quoted in the *Gurusaṁhitā* we are in a similar difficulty. Verse 108[82] has its parallel in verse 101 of the *Mayūrachitraka*.[83] Of the three verses (6 to 8) introduced as *anyachcha* in the *Gurusaṁhitā* verses 7 and 8 occur in the Mēghamālā.[84] Of verses 187 to 192, introduced by the expression *anyachcha granthāntarē*, verses 187 to 191 occur in the *Mēgham ālā* with some variations.[85] We do not find elsewhere anything parallel to verses 483 to 485 of the *Gurusaṁhitā* which have been introduced as *uktañcha granthāntarē*.

We do not propose to discuss here the question of the borrowings which the *Gurusaṁhitā* has made from other sources. But, it is clear that it has many passages which occur also in the *Kṛishi-Parāśara*, *Mayūrachitraka* and *Mēghamālā*.[86] The author of the *Gurusaṁhitā* has not acknowledged these borrowings. Considering the fact that he has acknowledged his source of information in the case of Varāhamihira, *Mayūrachitraka*, Garga and other unnamed texts it will not be fair to accuse him of plagiarism. We can suggest two alternatives to explain the facts. First, there was a common source from which the *Gurusaṁhitā* and the other texts alike borrowed. Second, there was a floating mass of literature from which all these texts borrowed. Of these the second explains better the absence of any reference to the original source on which the *Gurusaṁhitā* and other texts drew.

The *Mēghamālā* offers a clue to this problem. The folophon says that the

Mēghamālā formed a part of the *Rudrayāmalatantra*.[87] This seems to have been credulously accepted by D.R. Tripathi,[88] who, at places, reproduces verses from the *Mēghamālā* as originally belonging to the *Rudrayāmala*. The connection of the verses in the *Gurusaṁhitā* and the *Mēghamālā* with the *Rudrayāmala* receives an apparent support from the fact that some of these verses are specifically stated to be addressed to Pārvatī by Śiva, Īśvara or Rudra. But the similarity is superficial. Whearas the *Rudrayāmala* is in the form of dialogue between Bhairava and Bhairavī, the *Gurusaṁhitā* and *Mēghamālā* record the dialogue between Īśvara and Pārvatī. Morever, in the *Rudrayāmala* it is the Bhairavī who replies, but in the *Gurusaṁhitā* and *Mēghamālā* Īśvara provides information to Pārvatī.[89] Further, none of the verses in the *Gurusaṁhitā* and *Mēghāmālā* appear in the *Rudrayāmala*. The printed version of the *Rudrayāmala*[90] does not contain any chapter or section dealing with climatology or any other allied subject. Actually there is no such context where we can expect these verses to occur. The *Rudrayāmala* has a totally different scope and nature as regards its contents and subject matter. We, however, do not mean to dismiss the possibility that at some stage the *Rudrayāmala* contained chapters dealing with the topics other than those generally found in a *tantra* or *Yāmala* text.[91] Or else texts were prepared on such topics and, to give them an air of authority, they were passed on as parts of the *Rudrayāmala*. The Sarasvati Bhavan Library or the Sampurnand Sanskrit University, Varanasi possesses a manuscript (No. 35177) of a text called *Saptanāḍīkaṁ Varshaphaṇichakram* which claims to be a part of the *Svarōdaya* section of the *Rudrayāmala*.[92]

Thus, though we may doubt if the verses in our text actually formed a part of the *Rudrayāmala*, we get a rough indication of the period to which the composition of the text can be assigned. It must belong to a period long after the *Rudrayāmala* had established its reputation. The Yāmalas are generally assigned to the period between the sixth and ninth centuries, with additions made down to the tenth century.[93]

Before taking a stock of all the available clues to the date of the *Gurusaṁhitā* we have to determine the nature of this text. Is it a mere compilation or is it a new composition ? The text is clearly different from the medieval digests (*nibandhas*) which do not contain any new passage but simply collect quotations or opinions from other sources. The *Gurusaṁhita* reproduces some passages from a new sources with due acknowledgement. But about other passages, which form the bulk of the text, there is no indication that they were borrowed from some other sources. The author intends to present the text as a new composition, of course, with suitable quotations here and there. As we have suggested above, the passages which the *Gurusaṁhitā* has common with other texts, such as the *Kṛishi-Parāśara*, *Mayūrachitraka* and *Mēghamālā*, are indications that the authors of these texts were alike drawing upon a common fund of floating material. In view of the nature of this material, which had not appeared earlier in any established text, no acknowledgement has been made to any original source. All the authors alike attempted to put the material on record and presented it as their own. We are of the opinion that besides the astronomical indications in authentic texts of Varāha, Garga and others, there was a considerable mass of weather maxims acquired and accumulated through practical observation and experience spread over centuries. The *Gargasaṁhitā* and other texts merely collected these maxims.[94] This is the reason why we find varying degrees of similarly and difference in different versions.

The uppermost limit for the date of the *Gurusaṁhitā* is porvided by the date when the present copy of the manuscript was prepared. It is stated to be the seventh day in the Dark Fortnight (*Kṛishṇasaptamī*) of the month of Phālguna in (Vikrama) *Saṁvat* 1934 and Śaka 1799[95] which is equivalent of Saturday the 23rd of March, A.D. 1878. The text must have been written quite sometime before this date.

So far we do not know of any text which mentions the *Gurusaṁhitā* or quotes from it. Hence we cannot pursue this line of enquiry to narrow down the upper time-bracket. But we have another useful indication which can be used here. As we have suggested earlier, the *Gurusaṁhitā* collects weather-maxims current in Hindi and many regional languages. In Hindi (including Rajasthani) they are available under the names of Ghāgha and Bhaḍḍarī in Bengali under Khanā, in Maithili under Ḍāka. All these vernacular maxims have a sociological purpose to fulfil. The weather-maxims in Sanskrit, as recorded in the *Gurusaṁhitā* and other similar texts, had a parallel purpose to fulfil. These Sanskrit texts had a sociological justfication only in a society and period wherein their contents could be used by those who were direçtly interested in agriculture. They could not have a practical utility after regional language came into being and collected the same information in the languages that gained currency later. Thus, the *Gurusaṁhitā* and other similar texts could logically belong to a period before the emergence of the weather-maxims in the regional languages when there was a practical utility for preserving the fund of weather-maxims in Sanskrit.

To conclude, we have to place the *Gurusaṁhitā* long after the times of Vasishṭha, Garga and Varāhamihira. It was most likely posterior to Bhaṭṭōtpalā's commentry and the *Rudrayāmala*. It has to be placed before the emergence of the regional weather-maxims. It belonged roughly to the same period to which the *Kṛishi-Parāśara*, *Mēghamālā* and *Mayūrachitraka* belonged. As it quotes from the *Mayūrachitraka* also, it was slightly later in date than the *Mayūrachitraka*. It has to be placed in the period in which people knowing Sanskrit could be interested in agriculture and in which there was a sociological justification for formulating and preserving weather-maxims in Sanskrit. Considering all this, a date in the early medieval period, towards the close of the ancient period and the beginning of the medieval period, will serve the requirements of the case. We may, without being dogmatic, accept the rough bracket of the second half of the twelth and the first half of the thirteenth century.[96]

REFERENCES

1. See pp. 158-64.
2. See pp. 113-22.
3. Published as *Prāchyabhāratīyam Ṛituvijñānam* (Ancient Indian Science on Climatalogy and Weather-forecasting). Sarasvati Bhavan Studies, Vol. XIX, Varanasi, 1971.
4. V. 186=*Bṛihatsaṁhitā*, XXI.37. Verses 438-29 are ascribed to Varāhamihira but are not found in the printed text of the *Bṛihatsaṁhitā*
   Ekōttara-sahasraṁ tu Ketōś-ch-aiva tu samkhyayā utpadyante grahā yasya pṛithak na deyem pṛithak phalāni vai //
   Tvayā sāṁkshepataś-ch-ōktaṁ māsa masasy a yat-phalam / gōpanīyaṁ sadā-vaśyaṁ deyam yasya kasyachit//
   Verse 428 may be compared with *Brihatsaṁhitā* XI.5.
   Śatam=ek-ādhikam=eke sehasram=apare vadanti ketūnām
5. E.g., vv. 136-37=*Bṛihatsaṁhitā*, XXV, 5-6.
   Verse 137 is repeated with slight variations as v. 241. We have suggested elsewhare that verse 205-12=*Bṛihatsaṁhitā*, XXII, 1-3, 5-8 were actually included as quotations from the *Biṛhatsaṁhitā* see our article "On the Gurusamritā to be published in Pattabhiram Shastry Felicitation Volume.
6. Yadi tāḥ syur=eka-rūpāḥ śubhās=tatah s=āntarās=tu na Śivāya /
   taskara-bhayadāḥ prōktāḥ Śōkāś=apy=atra Vāsishthāḥ //
7. Yaqā vā vidyutaḥ śréshṭhāḥ Śubh-āśāḥ praty=upasthitāḥ /
   Tad=āpi Sarva-sasyānnā vṛiddhiṁ brūyād=vipaśchitaḥ // 209
   sa-pāṁśu-varshāḥ s=āpaś=cha śubhā bālakriyā api /
   pakshināṁ su-svarā vāchaḥ krīḍā pāṁśu-jal-ādishu // 210
   Ravi-chaṁdra-parīveshāḥ snıgdhā n=ātyanta-dūshitāḥ /
   vrishṭis=tad=āpi vijñeyā sarva-sasy=ābhivṛiddhāye // 2 //
   Meghāḥ snigdhāḥ saṁhatāś=cha pradakshiṅā-gati-kṛiyāḥ tadā syān=mahatī vṛishṭiḥ sarva-sasyārtha-sādhikā // 212
8. Catalogue, No. 1339, p. 392.
9. A clear distinction was made between these and Vasishṭha. Thus the *Mitākshrā* on *Yāi.*, III, 310 quotes Vasishṭha (XXVII.4), but on *yāi.*, III. 311 quotes Vṛiddha-Vasishṭha.
10. On *Yāi.*, III, 286.
11. Kane, *History of Dharmaśāstra*, Vol. I, Part 1, pp. 111-12.
12. *Smiticandrikā*, III, p. 300.
13. II. 3.; VIII.9—Vasishṭha's view is opposed to that of Satya.
    IX.2—Vasisṭha's view about horā and Drekkāṇa.
    XI.9—Vasishṭha and Maṇitta have the same view.
14. On *Brihatsaṁhitā*, VIII. 1.
15. The numbering of verses in the manuscript is defective. The first line appears as 205 b with the result that in verse 207 there is only one line.
16. XXII.1-8—The variations in our manuscript are mostly due to the mistake of the copyist. Thus we find *vidyut* for *vidyutaḥ*, *śasya* for *sasya*, *pāmsu* for *pāmśu*, *bali* for *bāla*, *dakshiṇāṁ* for *bhayadāḥ pakshināṁ*, *cātyanta-*for *nātyanta* and *saṁhitā* for *saṁhatā*. Other variations are *bhayadāḥ proktāḥ* (208 b) for *bhayadāścōktāḥ*, *vā* (209 a) for *tu*, *-vipaścitaḥ* (209 b) for *vicakshaṇaḥ-bhivṛiddhaye* (211 b) for *-bhivriddhayē*. The only significant difference is that the *Bṛihatsaṁhitā* quotes five verses from Vasishṭha, whereas our manuscript omits the first of these *Bṛlhatsaṁhitā*, XXII. 4) which runs as follows: *rathasādhikā* and *rthasādhikā* (212 b) for
    sa-vidyutah sa-pṛishataḥ sa-pāṁś-ūtkara-mārutāḥ /
    s-ārka-chandra-parichchhannā dhāraṇāḥ śubha-dhāraṇāḥ

17. On *Bṛihatsaṁhitā*, II (p. 56); V. 3; XXXII. 2; LVII. 1. The first of these shows that the text was known as the *Vasishṭhasiddhānta*. Incidentally it may be suggested that the text of Vasiṣṭha, on which varāhamihira drew, appears to have been somewhat similar in nature and scope to the *Bṛihatsaṁhitā* and was not confirmed to the narrower scope of astronomy. Varāhamihira (*Bṛihatsaṁhitā*, 57.1) mentions Vasishṭha's view in the section on iconography (*pratimālakshaṇa*)
chatur=angalaṁ Vatishṭhaḥ Kathayati netrānta-karṇayōr=vivaram /
adharō=ṅgula-pramāṇās=tasy=ārdhe n=āttar=ōshṭhaś=cha
Bhaṭṭotpala in his commentary gives the actual quotation from Vasishṭha :
karṇa-netr-āntaraṁ yach— cha tad-vindyāt chatur—angalam /
This clearly shows that the astronomical text ascribed to Vasishṭha was handed down to the times of Bhaṭṭōtpala.

18. It is to be noted that Bhaṭṭōtpala did not know that these verses occur in some other text. He supports Varāhamihira in ascribing them to Vasiṣṭha.

19. XXII. 10.

20. q. by A.M. Shastri, *India as seen in the Bṛihatsaṁhitā of Varāhamihira*, p. 5, f.n. 4.

21. S.K. Dikshit in his attempt to rehabilitate the authenticity of the *Jyotirvidābharaṇa* places Kali 3045, the epoch of the Vikrama era, in A.D. 405, postulating it to be the Sāhasāṅka-Vikrama era started by Chandragupta II of the Gupta dynasty—*Indian Culture*, VI, pp. 191-210, 376-92. For a criticism of S.K. Dikshit see K.M.K. Sarma. *Poona Orientalist*, V, pp. 205-09.

22. *History of Indian Astronomy*, pp. 212-13, f.n.

23. I.8 Sapt-āśvi-veda-saṅkhyaṁ saka-kālam—apāsya chaitra-śukl-ādau /
ardhās—tamite bhānau yavana-pure saumyadivas-ādye /

24. See A.M. Shastri, *op. cit.*, pp. 8-11 for criticism of other possible epochs.

25. *Journal of Indian History*, XXXVI, p. 347.

26. II, p. 7. See also *ibid.*, I, p. 392; II, pp. 86, 277.

27. Colebrooke, *Algebra of the Hindus*, p. xxxiii; Miscellaneous Essays, II, pp. 461-63.

28. nav—ādhika-paṁcha-saṁkhya-śāke varāhamihir—āchāryō divaṁ gataḥ

29. A.M. Shastri, *op. cit.*, pp. 11-15.

30. S.B. Dikshit, *ap. cit.*, p. 211.

31. Bhau Daji : Composition of the *Rōmakasiddhānta* (*Literary remains of Dr. Bhau Daji*, pp. 240-41); Thibaut : Commentary upon or adaptation of the *Rōmakasiddhānta* (*Pañcasiddhāntikā* Introduction, p. xxxviii) k Kern (*Bṛihatsaṁhitā*, Introduction, p. 4) and B.L. Mukherji (*JASB.*, VIII, 1912, pp. 275-78); date of Varāhamihira's birth.

32. Bhau Daji places it twenty or thirty years after A.D. 505—*Literary Remains of Dr. Bhau Daji*, pp. 240-41.

33. *Pañcasiddhāntikā*, XIV. 45.

34. shashṭy=abdānāṁ shashṭir=yadā vyatītās=trayaś=cha yugapādāḥ !
try=adhikā viṁśatir=abdās=tad=eha mama janmanō=atītāḥ

35. A.M. Shastri, *Journal of Indian History*, XLII, pp. 915-20.

36. *Sārāvalī*, 1.2.

37. A.B. Tripathi (Ed.) *Bṛihatsaṁhitā*, Introduction, p. 20.

38. A.M. Shastri, *India as seen in the Bṛihatsaṁhitā of Varāhamihira*. p. 16.

39. *Ibid.*, pp. 15-18.

40. A.B. Tripathi (Ed.), *Bṛihatsaṁhitā*, Introduction, pp. 8-9 :
Vasv=ashṭ=ashṭa-mite śāke kṛit=eyaṁ vivṛitir=mayā

41. Colebrooke, *op. cit.*

42. v. 231=Jyeshṭe cha māse bahule cha pakshe nakshatra=yugmaṁ śravaṅe dhanishṭhā/
yāvad=ghaṭī garjati vidyud=abhraṁ/
tāvach=chhubhaṁ varshati garga-bhāshitam//
v. 290—Yatra māsā vibhāge cha nirmalaṁ driśyatō nabhaḥ

tatra hānis=tv=anāvrishṭir=vijñeyaṁ Gārga-bhāshitaṁ
v. 473-Urdhva-sthāne yadā vṛikshe nilayaṁ kurute khagaḥ/
sadā vṛishṭiṁ vijānīyād Gargasya vachanaṁ yathā//
Of these three only in the case of the third one we can take the following verses (474-482) to be the direct utterances of Garga because of the expression *Gargasya vachanaṁ yathā* in v. 473 which seem to introduce them. But D.R. Tripathi seems to be of the view that in all these cases not only the following verses but also the preceding ones, in effect the whole section in which the three verses (231, 290 and 473) occur, are to be regarded as expressing Garga's opinion. On pages 40-41 he reproduces verses 287 to 297 on the indications of the speed of wind in Āshāḍha as made by Garga and imediately follows it (pp. 41-42) by verses 303 to 312 on the indications at the time of sun-set on the full-moon day of Āshāḍha as made by Garga, though the name of Garga occurs in the first set of verses (verse No. 290). Later on pages 191-93 he reproduces the entire section (verses 287 to 319) as indications of *Vṛishṭigarbha* in Āshāḍha as uttered by Garga. On pages 54-55 he reproduces ten verses from the *Meghamāla* as the indications of the nest of a crow as pointed out by Garga (of these the first is identical with v. 464 of our text; some have varying degree of similarity, while others have a totally different meaning or are all together new. But the verses do not contain the name of Garga and there is no apparent reason why Dr. Tripathi ascribes them to Garga. But, immediately after these he reproduces (pp. 55-57) verses 464 to 483 of the *Gurusaṁhita* of which verse 473 contains the words *Gargasya vacanaṁ vathā*. Strangely enough, Dr. Tripathi does not follow this clear statement and instead prefers to attribute the entire section to some author (without naming him) other than Garga. On page 180 Dr. Tripathi ascribes verses 231 to 234 to Garga appearently because of the occurence of the name of Garga in v. 231. But he does not specify the reasons for regarding verses 232 to 234 to be Garga's utterances and for not including the preceding verses from 213 to 230 in the same section under the category of 'verses representing Garga's opinions on signs of *vṛshṭigarbha* in Jyeṣṭha'.

43, saṁgrahet=sarva-dhānyāni kārtike cha maharghata/
śīghraṁ lābham=avāpnōti n=ānyathā munibhāshitam//

44. v. 397-ketu-chāraṁ pravakshyāmi yathā Gargeṇa bhāshitaḥ /
sarve tu dhāraṇā jīvā bhānushād=eva saṁsthitāḥ //

45. v. 427-Devaevena Rudreṇa kathitaṁ girij-ātmaj-ām /
Gargeṇ—evam punaḥ prōktaṁ devarāyasamarpitaḥ

46. Rāja-rāshṭraṁ prajānāṁ cha sarv-ōpadrava-varjitaṁ /
evaṁ Śakra mayā khyātaṁ yat—prōktaṁ Śūlinā svayaṁ

47. Garga uvācha.

48. *Harivaṁśa*, XXXII. 15-20.

49. (B.I.) p. 20.

50. Parāśara, I.12-14 mentions Gargya, but Paiṭhīnasi as quoted by Mādhavācārya (on Parāśara, p. 108) has the name Gārgya.

51. Quoted by Viśvarūpa, on *Yāj.*, I. 4-5.

52. E.G., Viśvarūpa, Aparārka and Vijñāneśvara on Yājñavalkya and *Smṛittchandrikā*. See Kane, *History of Dharmaśāstra*, I, part 1, pp. 276-77.

53. On Yāj., I.72—Patitāḍ sthriyas—tyājyā bhatṛi-vadha-pratiyñāyāṁ cha

54. Kane, *op. cit.*, p. 276.

55. The *Mahābhārata* (Anuśāsana, 125.77 ff) mentions Vṛiddha-Gārgya as enquiring about *vrishōtsarga*.

56. Viśvarūpa on *Yaj.*, I, 195 quotes a *sūtra* from Vṛiddha-Gārgya-Anek-ōddhārye Kāshṭha-śile bhūmi-same /

57. Kane, *op. cit.*, p. 276.

58. p. 547.

59. Anuśāsana 18.38, Śalya 37.14.15.

60. Quoted by Bhaṭṭōtpala on *Bṛihatsaṁhitā*, I.5—

Svayaṁ dvayambhuvā śrishṭaṁ chakshur=bhūtaṁ dvijanmanāṁ /
vedangaṁ jyōtishāṁ brāhmaparaṁ yajña-hit-āvaham //
Mayā Svayambhuvaḥ prāptaṁ kriyā-kāla-prasādhanam /
vedānām=uttamaṁ śāstraṁ trailōkya-hita-kārakam //
Mattaś=ānyan=ṛishīn prāptaṁ pāramparyeṇa pushkalam /
tais-tadā srashtṛibhir=bhūyō granthaiḥ svaiḥ svair=udāhṛitam //

61. Garga is named fifteen times in the *Bṛihatsaṁhitā*, e.g. XI.1 (on *Ketucāra*), XXI.2 (on *prāviṭkāla-lakshaṇa*), XXIII.4 (on *varshapramāṇa*), XLV. 1 (on *varshapramāṇa*), XLV I (on utpāta).
62. On Bṛhatsaṁhitā, XXXV.3-Tathā, cha Garg-ōkta-Mayūra-chitrake paṭhyate //
63. Bhaṭṭōtpala on *Bṛihatsaṁhitā*, I.11 (p. 12) in the prose portion of his commentary mentions the name of the sage, an authority on astronomy, Garga but the verses reproduced by him to illustrate *praśna* and *pratipraśna* mention him as Vṛiddha-Garga.
64. P.V. Kane, "Varāhamihira and Utpala", *JBBRAS* (NS), Vols. 24-25, 1948-49, pp. 5-8.
65. On *Bṛihatsaṁhitā*, XVII 2-3.
66. Varāhamihira mentions Garga in the *Bṛihatsaṁhitā* but does not give his name in the *Bṛihatjātaka*.
67. *Brhatsaṁhiā*, Preface, pp. 33-40. See also K.P. Jayaswal, *JBORS*., XIV, pp. 397 ff. Kern says that the titles of the chapters of this text are almost the same as in the *Bṛihatsaṁhitā*.
68. For the connection between Gārgi and others see P.V. Kane, "Varāhamihira and Utpala", *op. cit*.. p. 9.
69. Kern, *op. cit*., places Garga about 50 B.C. Kane, *History of Dharmaśāstra*, V, p. 594 points out : 'Garga himself knew the rāśi system, the system of the exaltation of planets and of *drishṭis*'.
70. We have the expression *iti Mayūrachitrē* after 116a. It is not clear how many of the preceding verses are from the *Mayūrachitraka*. Possibly all the earlier verses beginning with v. 108 are intended to be quotations from the *Mayūrachitraka*.
71. Verses 6-8, 108, 109, 110. As each of the successive verses 108, 109 and 110 is introduced as *anyachcha*, they seem to be quotations from three different sources or else, if they are from the same source, they occur in three different places with gaps.
72. Verses 187-192.
73. Verses 483-85.
74. XLVI.
75. *Chitra* means conspicuous, excellent, bright, bright-coloured, variegated, spotted, manifold. As a noun *chitraka* means a bright or extraordinary appearance, wonder, anything bright or coloured which strikes the eyes. Texts dealing with forecasting of rainfall have been given this title because peacocks are known to be thrilled by the sight of clouds and to dance in joy,
76. See *supra* f.n. 62.
77. Lakshmi Venkatesvar Press, Bombay, 1896.
78. p. 377.
79. Srasvati Bhavan Library of the Sampurnand Sanskrit University, Varanasi, Nos. 34332, 34913, 36506 and 37163. Of the various manuscripts in the possession of my friend Sri Dinesh Kumar Sharma, which I have copied, there is one of the *Mayūrachitraka*. Unless specified I have referred to this version of the text.
80. *Ibid*., Nos. 34913 and 37163. Critical editions different versions and texts of *Mayūrachitraka* will be of great use.
81. Quoted by D.R. Tripathi, *op. cit*., pp. 151-52.
82. Pañch-ārka-vāsare rōgāḥ pañcha bhaume mahad=bhayam /
pañchame deva-durbhikshaṁ śesha-vārāḥ śubhā-vahāḥ //
83. Pañch-ārkā pamcha-bhaumās=cha paṁcha mandās=cha vāsarāḥ
durbhikshāṁ bhayam—ādeśyaṁ śeshāḥ syuḥ śubha-vāsarāḥ //

84. Quoted by D.R. Tripathi, *op. cit.*, p. 127.
85. *Ibid.*, p. 169. Verse 192 does not have any parallel but belongs to the same context.
86. Our detailed findings on this point will be published elsewhere.
87. Rudrayāmale Umā-maheśvara-saṁvāde /
There are seven manuscripts of the *Meghamālā* in the Sarasvati Bhavan Library, Nos. 34544, 34545, 35198, 35328, 35728, 37202 and 37334. Of these the last three mention it to be a part of the *Rudrayāmala*.
88. *op. cit.*, pp. 116-17.
89. This is actually an important point of difference between the Śiva Tantras or Āgamas and the Yāmalas. Whereas the former represent the Rudra or Sadāśiva tradition, the latter represent the Bhairava tradition. See P.C. Bagchi, "Evolution of the Tantras", in *Cultural Heritage of India*, Vol. IV, p. 216. Verse 352 in the *Gurusiṁhitā*, however, represents Bhairava as addressing Pārvatī. The reading *Bhairavam abravīt* (D.R. Tripathi, op. cit., p. 116) is a clear mistake for *Bhairavo-bravīt*. D.R. Tripathi, op. cit., pp. 115-16 reproduces verses from the *Gurusaṁhitā* which are supposed to occur originally in the *Rudrayāmala* as being the views of Bhairava (*Bhairavamatam*).
90. The text was originally published by Jivanand Vidyasagar Bhattacharya (Calcutta, 1892). It contained 66 *paṭalas*. The new edition (1980) brought out by the Sampurnand Sanskrit University differs from the earlier edition in the number of verses in the various *paṭalas* and also has additional *paṭalas* from 68 to 90.
91. cf. P.C. Bagchi, *op. cit.*, p. 217; 'There are fragments of the *Rudra Yāmala* published in Bengal, but it is difficult to say how far they have preserved the old text'.
92. D.R. Tripathi, *op. cit.*, pp. 106 f., 108-110.
93. P.C. Bagchi, *op. cit.*, p. 216. M.P. Tripathi, *op. cit.*, p. 118 mentions 900 A.D. as the date of the *Rudrayāmala*.
94. Cf. M.P. Tripathi, *op. cit.*, p. 118.
95. Saṁvat 1934 Śāke 1799 Phālguna-Kṛishṇā-saptamyāṁ le (—lekhaka) śri-Śuryanārāyaṇa jhā jyō ā (jyōtish-āchārya).
96. M.P. Tripathi, *op. cit.*, p. 118 on internal evidence places the parallel text *Meghamālā* not earlier than the beginning of the mediaeval period (A.D. 1200 to 1400). We propose to publish elsewhere our findings on the internal evidence of the *Gurusaṁhitā*.

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THAI INDIA CULTURAL TIES

K.V. RAMAN*

For a student of ancient Indian history and culture, a visit to Thailand is indeed a dream fulfilled. I could not realise the depth of the cultural ties between India and Thailand until I visited that country and its ancient cities and beautiful monuments. It is astonishing to find all our major ancient cities and towns there! The following are some of the place names of Thailand : Dvāravatī (Dvārakā), Ayuttaya (Ayōdhyā), Lob Buri (Lava-puri), Kāñchanaburi, Pratama Nagara (Praton Nokam), Prachena Nakorn (Prachīna Nagara), Araṇya Pratesh, Buri Rām, Phisṇulōk (Vishṇulōk), Indralōk, Svarṇalōk, Chantapuri, Vajrapuri (Petkburi), Nakaru Śrī Thamaraj etc. The ancient capital of Siam kingdom was called by the beautiful Sanskrit name "Sukothai" which is a compound of the words Sukh and Uthai or "Dawn of Happiness." The ancient name of the present Bangkok city was known as Ratnakōśa and it was founded by the kings of Chakri dynasty who were known successively as "Rāma". There is a place called Suphan Buri which is Suvarṇapuri. Many scholars have opined that the "Suvarṇa Bhūmi" of the ancient Indian texts included Thailand.

The Thai, language itself has received considerable influence from Sanskrit and Prakrit so that we find many familiar words like *Karuna* (Please), *Swatee* (*Svasti*, Welcome) *Chan* (*jal* or water) Dēvālaya (Hindu temple), Vidyālaya (College), Prasat (Prāsāda : temple) Dhyāna, pūmālai (mālā-garland). Since Thailand had been a Buddhist country Prakrit or Pali words are freely in use like Dhamma, Saṅgha, Bikku, Jātakas, Dhana, Chedi (Chaitya).

Names :

The personal names of Thai people both male and female offer another interesting field of cross cultural study. I could find several Indian names such as : Prem,

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Sagar, Siddhi, Latcharoj, Vimal, Piriya (Priya). The name of H.E. King of Thailand is Adulyatej Bhūmipal and his coronation name is Rāma IX. Thailand's Prime Minister is Mr. Prem Tinsulananda. Among the female names we find frequent occurrence of names like Umā, Patuma, Subhadrā. Latchimi, Ratna, Rukmiṇī, Vanida (Vanita). One of the queens of Thailand was known by the name Sunanda-Kumāriratna.

A University or college is called "Vidyālay" and there are many of them in Bangkok city such as Mahachula, Mahakut, Tamsadat. etc. The University for fine arts is appropriately called "Silpakorn" University. The Dean of the faculty of Fine Arts of the University Prof. Subhadradis Diskul is a well known scholar and expert on Thai art-history and is very familiar with art-history of India as well. The teacher is held in high regard and revered as "*achan*" (*āchārya*) and I could see the students bowing in *añjalī* to the teachers in the old Indian tradition.

A drive through the beautiful roads of Bangkok could reveal to one of the several fascinating Indian names, such as Rachavīdhī Road, Yuvarāj Road, Ratchaprasong Road, Maitri Road and Aśōka Road. A fashionable locality of Bangkok is called "Sukamvit". One park is named Lumphini park (after the Lumbini gardens) and another as Patumavana (a forest of lotus). Shops, hotels and studios also bristle with Sanskrit names. There are : Suriya Studio, Chitralata shop, Indra Hotel, Leela Art Production, Preeta Pharmacy, Ram Tailors. One of the leading hotels at Bangkok (Royal Hotel) has rooms such as "Rāja Room", "Noparatana (Navaratna) Room".

Sculptures :

One has only to visit the National Museum at Bangkok to appreciate the rich religious and sculptural heritage of Thailand. There are exquisite sculptures of Buddha in different postures and styles. We can see the influence of the classical Gupta style of India on many Buddhist sculptures of Dvāravatī (7th to 11th century) noted for the transparent apparel, charming and serene face and graceful balance. Influence of the Eastern Indian sculptural style of the Pālas is easily recognisable. A bronze image of Avalōkitēśvara Bōdhisattva of Śrīvijaya period is a superb example of the Pāla influence. But at the same time many of the sculptures display local idiom and traditional features. The names of the different halls and galleries of the National Museum are interesting. Some of them are : Thaksina Phimuk, Uttara Phimuk, Patchima Piramuk, Vasanta Phimuk, Varyusthan etc.

The presence of fine sculptures representing the Hindu gods and goddess serve to remind us of the spread of Hinduism in Thailand during earlier period. The images of Vishṇu predominate. He is represented with four hands holding the conch (*Śankha*) disc (*chakra*) *gadā* (club) and one hand shows *abhayamudrā*. The Vishṇu image found at Chaiya in the southern Thailand is dated 4-5th century A.D. and displays affinity with the Mathurā and Amarāvati style. At a place called Si Tep

(Śrī Dēva) in north central Thailand several Hindu images like Vishṇu, Sūrya were found. At Ubon Rachathani (Rājadhāni) a figure of Ardhanārīśvara was found.

Religion :

The religion as practised in Thailand is often described as an amalgamation of three traditions—Buddhism, Hinduism and Animism. In the National Museum are also seen big sculptures of liṅgas, Śivā and Umā, Garuḍā. These sculptures follow the Indian style Hindu traditions of iconography. Even minor Hindu divinities like “ashṭadikpālas” (guardian deities) Yakshas, Kinnaras, mythical animals like Vyālī and makara are found freely used in Buddhist temples.

Temple for Brahma is very rare in India. But one is surprised to see a flourishing shrine for Brahma who is regarded as the God of Good fortune in a busy locality of Bangkok city. It is situated within the compound of a star hotel named Erawan Hotel. I was told that a series of misfortunes occurred during construction and the Brahmin priests when consulted, advised them to build a shrine for Brahmā to ward off evil. It brought good luck to the hotel. People including the Chinese living in Bangkok flock to the temple, day and night and offer *pūjā* or *prārthanas*. They believe that the offerings bring good luck to them. Garuḍā is extremely popular in many of the South east Asian countries like Indonesia and Thailand. Garuḍā is the national symbol of Thailand found on the letter heads of official letters. Business houses also use Garuḍā as a crest in their offices with the royal permission. It is a sign of great prestige. Vishṇu mounted on Garuḍa is a popular motif often seen on the entrance gate or lintel of the Buddhist temples. Garuḍā is also the personal emblem of king of Thailand who, according to the local belief, is associated with Vishṇu. Buddhism and Hinduism were easily incorporated into traditions of South East Asia.

Epics :

The two immortal epics of India, the Rāmāyaṇa and the Mahābhārata as well as the Buddhist Jātakas provided an important cultural link between India and South East Asia. In Thailand, the Rāmāyaṇa story was very popular from early times. The Thai version of the Rāmāyaṇa is known as “Ramakien” and is depicted in sculpture, painting, classical dance and puppetry. Exquisite sculptural scenes from the Rāmāyaṇa datable to the 12th century A.D. are found at Lop Buri. Bas reliefs of the Rāmāyaṇa are also seen at Wat-Po. Around the temple of Emerald Buddha, in the Grand Palace at Bangkok city, our eyes can feast on the Rāmāyaṇa paintings executed in pleasing and brilliant colours. The paintings go round the entire verandha around the temple and they are considered the longest series of paintings in the world. These were originally painted during the reign of king Rāma I, the founder of the city of Ratnakōśa (Bangkok) in 1782, but the paintings have been periodically renewed and redrawn. In the shrine of Emerald Buddha, paintings depicting the Buddhist Jātakas are also found.

Dance :

The classical dance of Thailand is often based on the Rāmāyaṇa themes. They are enacted with the attractive bright coloured traditional dress in the courtyard of the temples to the accompaniment of soft and melodious instrumental music. They are of slow-paced movements with emphasis on the *mudras* and gestures. There are often performances of classical dances in Bangkok hotels and restaurants.

There is an old Hindu temple in the city of Bangkok. It is locally called "Dēvālaya" to which Buddhists also come for worship. The priest of the temple is a Thai Brahmin. The present incumbent whom I met, is a young man with charming and tender Thai face. He was wearing Pañchakacha-Dhoti and having Śikha in the Indian fashion. He spoke only Thai and some halting English. He told me that his ancestor hailing from Uttar Pradesh came to Thailand some 200 years ago and his father's name was Vāmadēva Muni. They belong to the family of "Rajakur" (Rājaguru or Royal priests) and officiate in the royal ceremonies of the Thai kings. They have intermarried the Thais and become one with them. Inside the Dēvālaya there are shrines having for Vishṇu, Śiva, Gaṇēśa. The worship is offered to Buddha also. The priest recites Sanskrit mantras during worship. He has some manuscripts with him where *mantras* are written in the granthā script of South India. The Indian residents of Bangkok are running a Thai-Bharat Samājam where a beautiful Hindu temple and big school are located. Numerous Thai students are also studying there. It is rendering fine service to both the communities.

The Thai people, especially the intellectuals, evince keen interest to know more about India for which they have love and respect as the holy land of Buddhism and Hinduism. Private cultural bodies like Volunteer group of the National Museum, Bangkok and the Siam society are doing good service in the field of dissemination of knowledge about the history, art and archaeology, of Thailand and India, More should be done by India both Government and private bodies to cultivate and strengthen the ancient cultural bonds by arranging for exchange of students and research scholars, books and journals besides inviting large number of tourists.

Since Bangkok is a busy city of international importance, its population is cosomopolitan in character with the Chinese, Burmese, Malaya, Indian and American in sizeable number living there. Indians, mostly composed of the Sindhis, Punjabis, Sikhs are doing well in the field of business. A few old Tamil settlers are also there. They are highly appreciative of the land and the people of Thailand and are full of admiration for their traditional hospitality, soft nature and tolerance. Some of the Indians of older generation whom I met recalled with pride their association with Netaji and I.N.A.

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DR. S.R. RAO AND CAREER

DR. NALINI NAGARAJ RAO, HOUSTON (USA)

1. *Education, training and awards*

Shikaripur Ranganatha Rao (S. R. Rao) was born in the year 1922 at Anandapuram in Shimoga District of the erstwhile Mysore State now a part of Karnataka. He received his B.A. Hons (History) degree from the University of Mysore and M.A. (History) from Nagpur University. In 1981 he was awarded the degree of Doctor of Literature by the University of Mysore for his book *Lothal and the Indus Civilization* (1973).

He joined the Archaeological Department of the erstwhile Baroda State as Assistant Director in 1948 and received training in epigraphy and numismatics. He was trained in Architecture in the Baroda Kalābhavan and in conservation and excavation in the Archaeological Survey of India. After the integration of the Baroda State with the Indian Union he was appointed Assistant Superintendent in the Archaeological Survey of India. Since then he has worked in various capacities until his retirement in 1980. He is presently in charge of a basic research project of "Marine Archaeological Studies in Indian waters" funded by the Indian National Science Academy and being implemented by in collaboration with the National Institute of Oceanography, Dona Paula, Goa.

Dr. Rao had a brilliant academic Career. He won the Sir Hugh Candy Gold Medal for first rank in B.A. (Hons) and was awarded the Jawaharlal Nehru Fellowship in 1977 for undertaking further research on Indus Script. The Mythic Society honoured him by awarding the gold medal for 'the Scholar of the Year 1981'. Learned Institutions have conferred on him the titles '*Prācya-Vidya Viśārda*' and '*Samāja-bhūṣaṇa*'.

Inspite of his busy schedule he finds time to encourage research in music, art and Archaeology by private institutions and individuals. He is chairman of the Board of Trustees of the Keladi Museum and Historical Research Bureau and Chief Editor of the Publications of the Board. As a Trustee of the Karnataka Chitrakala Parishath, Bangalore, he takes active part in the publications and developmental activities of the Trust. He is the consultant on architectural features to the Krishna Temple Trust, Delhi. As president of the Jayanagr IV T Block Residents' Association he is rendering social service also. In the capacity of Vice-Chairman of the Purandara Sevasamiti, Bangalore he is interestad in encouraging research in music.

2. *Excavations and Discoveries*

Soon after receiving training in the technique of archaeological excavations at Sisupalgarh in 1948 Rao carried out a small scale excavation on scientific lines at Amreli in Gujarat where he discovered a Buddhist Vihara and came across a unique system of post-cremation burials with megalithic features. His exploration of the neighbourhood of Amreli brought to light Vaniavadar, a Late Harappan site and Machiala Mota, a post-Harappan site. In his subsequent excavation at Machiala Mota, the exuberance and decay of the Lustrous Red Ware Culture were noticed.

Rao still remembers how he accepted the challenge of excavating Rangpur which had a chequered career at the hand of three other well-known archaeologists. His excavation revealed structures and artifacts of a mature Harappan phase and Ghosh accepted and published Rao's findings about the mature-, late-, transition-, and post-Harappan phases designated Rangpur II A, II B, II C, and III respectively. This raised a controversy among archaeologists but died soon after Rao discovered Lothal in 1954 and found in the excavation several Indus seals. His extensive exploration of Gujarat including Kutch, brought to light as many as 50 sites of Harappa Culture which he classified in terms of Rangpur sequence. The discovery of a well-designed dock at Lothal not only gave a maritime bias to the Indus civilization, but also added a maritime province to the Indus Empire, the southern limits of which were extended upto the banks of the Kim river in south Gujarat. Now Lothal and Rangpur are considered as index sites of the Indus civilization.

The Neolithic, Chalcolithic and Megalithic cultures of the south received his attention soon after Rao completed the excavations at Lothal. He discovered and excavated Paiyampalli, a Neolithic-Megalithic site in North Arcot district of Tamilnadu and gave firm C 14 date for the Neolithic culture. In 1967 he excavated Sivavaram a Neolithic-chalcolithic site in Kurnool district of Andhra Pradesh where he noticed indirect trade contact with the Harappans as indicated by disc-beads etc. His earlier excavation at the famous Chola port of Kaveripattinam in Tanjore district confirmed the existence of brick wharf as early as the 3rd cent. B.C.

Rao's interest in reconstructing the history of maritime trade of India led him to another ancient port on the west coast. At Rajbandar in the Elephanta Island off Bombay, he exposed a brick jetty built in three phases between the 1st and 4th cent. A.D. Roman amphora and coins found here suggest trade with the Roman world.

Among other early historical sites excavated by him, Aihole and Pattadekal in Bijapur district of Karanataka and Chandrapura in Goa are significant. The former revealed occupation in the Satavahana times and a brick-temple which served as a prototype for Early Chalukyan temples of the 'mandapa' type. At Chandrapura also a 3rd Century brick temple was laid bare.

The medieval sites of Raigadh in Maharashtra and Hampi in Karnataka were excavated. He laid bare the palace-complex at both the sites. The Late Chalukyan and Buddhist inscriptions and structural remains at Hampi have pushed back the history of the site by nearly 1500 years.

Even in the year of his super-annuation (1980) he conducted excavations at Dwarka (Gujarat) which confirmed that the city was submerged four times by sea and the earliest submergence could be dated to the 14th Cent. B.C. This evidence supports the Mahabharatha tradition.

Conservation of National Monuments

Several monuments were conserved by Rao. Particular mention may be made of the repairs carried out to the foundation and dome of the Taj Mahal, the structural repairs to caves 1,2,16, and 17 of Ajanta and Kailasa Temele at Ellora. Other extensive conservation measures carried out by him relate to the Fort of Chitorgarh, the Mandapesvar, Jogesvari, Patalesvar, Karle and Elepahanta caves, temples of Dwarka, Sidhpur, Mudhera, Tanjore and Mahabalipuram.

In Karnataka the early Chalukyan temples of Aihole, Pattadakal and Badami, the Late Chalukyan temples of Balligame, Lakkundi and Chaudavapuram, the Hoysala temples of Halebid, Belur and Mosale and the Vijayanagar temples of Hampi received a face lift. He took particular care to preserve and display objects of art; and built museums of Aihole, Pattadakal, Badami, Laxkundi and Balligame.

Among the Muslim monuments conserved by Rao, the Gol Gumbaz at Bijapur, Tipu's palace at Srirangapatna and the monuments at Bidar, Agra, Fathehpur Sikri and Lucknow are important. The Bom Jesus, st. Assissi and other churches of Goa received his attention and major repairs were carried out.

Scientific investigations :

History of Science is another subject in which Rao is interested. He, in collaboration with Dr. Radha Krishna, former Director of Geology, Bangalore, and Dr. K.N.P. Rao, former metallurgist and U N expert in Iraq, investigated the copper workings and furnaces at Ralyadi (Hassan dist.), and published the findings in a paper on 'Mining and Metallurgy in Ancient India' read at XV International Congress of the History of Science, Edinburgh.

Marine archaeology is a new field of investigation which Rao has initiated in India in collaboration with the National Institute of Oceanography. Preliminary off-shore survey of Kaveripattinam has yeilded encouraging results. The project envisages underwater exploration of submerged ports and shipwrecks in Indian waters. He has serveyed Bet Dwarka, and Udyavara.

Dr. Rao's greatest contribution to archaeological research is the decoding of the Indus script and identification of the Indus language as one akin to the old Indo-

Aryan (Vedic) language. Many scholars in India and abroad have endorsed his findings. In recognition of his valuable research he was elected the President of the Sixth Annual Congress of the Epigraphical Society of India, Calcutta.

Publications :

Rao has contributed more than 50 research articles (vide list enclosed) to learned journals.

In commenting on Rangpur excavation report, Dr. K. Bittel, Director of the German Archaeological Institute, Berlin wrote 'This is a model for reporting excavation of prehistoric sites. I shall place it before the students in Berlin University'. *Lothal and the Indus Civilization* received encomiums from several reviewers, but one reviewer did not agree with Rao in his claim of 'firsts' for Lothal. But Rao has recently proved his point (vide his presidential Address to the Epigraphical Society, Calcutta).

The identification of the brick-enclosed basin raised the eye brows of some scholars but here again Rao's findings are supported by experts like Dr. K.N. Panikkar, former Director of the National Institute of Oceanography who personally examined the dock and published his opinion (in the Journal of Indian Sciences 1971-72).

The latest review of the book Lothal and the Indus civilization in *East and West* (1979) does full justice to his work. The reviewer observes "At the conclusion of this long accurate and complete study of the Harappan civilization the author gives his answer to three basic questions : who were the Harappans? what connection was there between the neolithic pre-Harappan cultures and the later civilization? when and by what means did the end of the Indus Civilization come about ?"

Rao's decipherment of the Indus Script has been endorsed by eminent scholars including Dr. B.Ch. Chhabra, Prof. Harish Majumdar (Kansas Univ), Prof. W.W. de Gaummond (Florida State Univ), Prof. F.N. Souza (New York), Dr. David Diringer (Cambridge), Prof. K.D. Bajpai, Prof. P.B. Desai, Prof. Ajay Mitra Sastry and Prof. S.H. Ritti. Prof. Souza said "Dr. Rao's research deserves a Nobel !"

Dr. Walter Spink of Michigan university summarises Rao's work and his qualities in his letter dated January 21, 1982 "Incidentally I must tell you how impressed I was on seeing Aihole and pattadakar again with the work which was done under your supervision and with your typical effectiveness! I think perhaps you were also responsible for the restoration of Mandapesvara.

I will be most interested to see your book on the Indus script, since I found your analyses convincing even though I can lay no clains to any expertise in that area. But I felt you were doing most significant work on that material ...... I look forward to seeing the *Traditional Paintings of Karnataka* to say nothing of hearing about your new discoveries in Goa etc. you have a great reputation for getting significant things done ......I only wish every one in our field had such energy and vision".

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DR. S.R. RAO AND HIS WORKS

H.R. Raghunath Bhat[*]

Shikaripur Ranganatha Rao has been not only one of our distinguished archaeologists, but essentially an Indus script specialist. Though not born for archaeology, he has made valuable contributions in different branches of Indian archaeology.

During the last thirty-two years of his service in the Archaeological Survey of India at different offices in various parts of the country, Dr. Rao has made important discoveries, conserved more than a hundred monuments of national importance and personally studied a large number of art objects and other antiquities. He has, to his credit, the discovery of nearly fifty sites of the Indus Valley Civilization in Gujarat itself the chief among them being the famous port-city of Lothal.

It was really a memorable moment in Indian archaeology when two cities of great antiquity were spotted in the Indus Valley, now in Pakistan. It was an equally remarkable moment when the significant Harappan site of Lothal, a port-town was discovered. It is really a vital key to our understanding of the full story of the Indus civilisation. The credit for this epoch-making discovery goes to S.R. Rao. His excavations at Lothal Rangapur and other sites have made Dr. Rao one of the foremost archaeologists of India. His excavations at Kāvēripaṭṭinam brought to light a brick wharf and other port-installation of the Early Chōḷa period. He has also brought to light similar remains of the Roman period in the Elephanta island near Bombay. He excavated two medieval capitals namely Raigarh in the North and Hampi or Vijayanagara in the south. It was at Hampi that he could discover for the first time Brāhmi inscription belonging to the early Christian era along with the Buddhist medallion. His initiative in the explorations and excavations at Hampi drew the attention of the scholars all over the world. It has now become one of our national projects which, if completed successfully, will result in the resurrection of the capital of the never to be forgotten empire. He claims to have discovered the figure sculpture of Purandaradāsa which is now installed in a temple at Hampi. Being one of the important members of the High Level

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Committee for the resurrection of Vijayanagar he could move a resolution in the eighth Annual Conference of the Epigraphical Society of India at Bhopal, relating to the special care to be taken to preserve all the inscriptions and special provision to be made for the fresh study of those epigraphs along with the antiquities.

Recently in nineteen seventy nine-eighty Dr. S.R. Rao made very important discoveries by unearthing four temples at Dwāraka and adducing evidence of the destruction of the holy city by tidal waves thus confirming the *Mahābhārata* evidence. The earliest settlement at Dwāraka has been assigned by Dr. Rao to the mid-second millinnium B.C. His excavations at Sidhpur in the district of Mehsama in Gujarat revealed the pre-Sōlanki art and architecture. He has brought to light some temple remains below the famous Rudramahālaya.

That conservations of ancient monuments is equally important is known so well. Among the monuments of national and international importance conserved by Dr. Rao, the world famous Tājmahal, the Ajantā, Ellōra, Mandapesvar, Jogesvari and Bādāmi Caves, the Chitorgarh and Raigadh forts, the Pallava and chola temples at Mahabalipuram and Tanjore the early Chalukyan monuments at Aihoḷe, Paṭṭadakal, and Badami, the Kalyāṇa Chāḷukya monuments at Baḷḷigāve, Lakkuṇḍi and Vijayanagar temples at Hampi the temples at Modhera, Menal and Dwarka and the Gol Gumbaz of Bijapur deserve special mention. He took initiative and great pains to establish sculpture-galleries at such important art-centres as Banavāsi, Baḷḷigāve, Lakkuṇḍi, Bādāmi, Aihoḷe and Paṭṭadakal. Along with the *insitu* study of the monuments and sculptures at these places the spot-museums help the scholars and travellers to study the art activities of the great centres of Karnataka. It is mainly due to Rao's efforts and perseverance that some of the historical places of Karnataka have regained not only their archaeological significance but also their tourist attraction. Those who have actually visited Aihoḷe, Paṭṭadakal, Bādāmi, Haḷēbiḍ. Baḷḷigāve, probably appreciate better the tremendous works of conservation and beautification done by Dr. Rao. He has been one of the great administrators and organisers in this regard who works hard by himself and allows others to work equally well.

Dr. S.R. Rao has made a deep study of the murals of Ajanta, Ellōra, Bādāmi, Tānjore, Hampi, Lēpākshi, Śravaṇabeḷagōḷa, Padmanbhapura, Ernākulam Maṭṭancherry Palace, Tambēkarwaḍ, Barōḍa besides the traditional paintings of Karnataka. The results of his study of paintings have been published recently in his work *Traditional Paintings of Karnataka.*

It is a matter of great appreciation that Dr. S.R. Rao's tenure as senior Superintending Archaeologist in the Mid-Southern Circle was marked by a tremendous spurt in the betterment of the monuments of Karnataka. He made sincere attempts to see that monuments are properly preserved and conserved by appointing a number of monument attendants at difference places. His attitude towards his fellow beings is one of sympathy and encouragement. Being a hard worker by himself, he always appreciates scholarly works and industriousness by his assistants and juniors. He was instrumental in getting the Mid-Southern Circle sanctioned and established at Bangalore. Improved conditions of many art centres in Maharashtra, Tamil Nadu, Rajasthan, Gujarat and Karnataka does not owe little but a great deal to his painstaking work and zeal.

Though officially retired from his Survey-service he has not been actually superannuated from his academic activities and researches. He is, in fact, known even today for his serious study and perseverance. As one of the distinguished archaeologists he has made many valuable contributions to different aspects of Indian archaeology in general and Karnataka archaeology in paticular.

No doubt Dr. Rao was trained in the initial years in pre-historic archaeology of India under Prof. F.E. Zeuner and later in West Asian Archaeology of the Bronze Age under Prof Claude F.A. Scheffeur in Soborne (College de France), where he was initiated into the study of ancient scripts by Prof. Naugayrod. His own explorations and excavations of Indus Valley sites like Rangapur and Lothal proved to be of crucial importance to him. Ever since the discovery of Lothal in nineteen fifty-four Ranganatha Rao has been doing fundamental researches in the field of Harappan script. His acquaintance with the ancient scripts linear A and B, North and South Semetic, Phoenecian and Hittite Hieroglyphics, his objectivity and perseverance made his contributions to the decipherment of the Indus scripts which was till recently the most puzzling of Harappan remains, really remarkable. Dr. Rao still believes in the statement once he made "Objectivity is lost if a decipherer starts with a preconceived notions". His method of decipherment has been acclaimed by eminent epigraphists and palaeographists. David Diringer, one of the great authorities on ancient scripts and author of *The Alphabet* observes "*It is my firm opinion that S.R. Rao has deciphered the Indus script. That is the main thing*". Accepting his methodology and the identification of the language several other scholars recognised Dr. Rao's most outstanding achievement. According to Prof. S.H Ritti, 'S.R. Rao achieved a break through in the first and fundamental problem, the decipherment of the Indus script. The right results obtained undoubtedly indicate that the means is correct. What is most striking in Dr. Rao's work is his scrupulous maintenance of objectivity and logical orderly steps throughout. It stands up rightly firm facing all criticism'. Dr. K.V. Ramesh states that 'it will be futile to deny that Dr. Rao's attempt constitutes, as on today, the most scientific approach to the problem.' In his appreciation or Rao's methodology and conclusions Prof. F.N. Souza (New york) writes. 'I wondered if the Indus script would even be cracked during my life. It seems it has. It seems to me, however, that it is pure scholarship which provides Dr. Rao with the correct answers. I would say his findings deserve a *Noble Prize*'. S.R, Rao's book *The Decipherment of the Indus Script*, a monument to his research abilities has just been published. Dr. B. Ch. Chhalra former Joint Director General of Archaeology and Chief Epigraphist, when asked by the Press Trust of India to comment on the book he said "I congratulate Dr. S.R. Rao once again on his excellent work and the decoding of the Indus script."

This Nobel Prize potentiality of Dr. Rao's work has been encouraged by awarding the nation's prestigious Jawaharlal Nehru Fellowship for the decipherment of the Indus script in nineteen seventy-seven. In recognition of his contributions to Indological researches particularly by decoding the Indus script, he was elected General President of the Seventh Annual Conference of the Epigraphical Society of India at Calcutta. The Akhila Bhārata Mādhva-Mahāmaṇḍala has conferred the title *Samāja Bhūshaṇa*, whereas Jagadguru Shankarāchārya of Dwārakapīṭha has conferred the title of *Prāchya Vidyāviśārada*. He was awarded the prestigious D. Litt. by the University of Mysore for his book *Lothal and Indus Civilisation*. This is being translated into Kannada by Prof. S. Gururajachar of Maharaja's College, Mysore.

Travelling widely in Europe, U.S.S.R., U.S.A. and West Asia, Dr. Rao delivered several lectures on Indus civilisation, Indus script, Indian Art and Architecture which have been his forte. He was invited by the Federal Republic of Germany to visit a number of Universities in nineteen seventy five. Dr. Rao delivered special lecutres in the Universities in London, Paris, Berlin, Bonn, Munich, Leningrad, Moscow, Harward, Berkely, Rochester, Illinois, Pennsylvania and Florida on subjects of his researches. Besides several Radio talks on indological subjects, Rangantha Rao also delivered special lectures at Banaras Hindu University, Bangalore University, Bombay University and recently in the Rāṣtrakavi Gōvindapai Memorial Research Institute, Udupi (Dakshina Kannada).

As a member of the National Committee of the International Union of the History and Philophosophy of Science Dr. Rao proposed research on the history of mining and metallurgy in India and conducted field investigations on copper mining at Kalyadi (Harson). He read a paper on the subject at XV International Congress of the History of Science Edinburgh in 1977. He represented India at XVI session (Bucharest), of the congress held in 1981 and highlighted in his paper India's contribution to marine engineering.

Dr. S.R. Rao has been a member of the British Society of History of Science, Epigraphical Society of India, B.M. Śrī Pratiṣthāna, Mythic Society and so on. He is the Vice-President of Purandaradāsa Samiti, trustee of Kannada Chitrakala Parishat, Chief Editor and Chairman of Keḷadi Museum and Historical Research Bureau, Honorary Correspondent of *Archaeological News*, U.S.A., Adviser, Brindāvan Samiti, Delhi, member of the high level committee of Hampi Resurrection, and President of the Jayanagara Fourth T. Block Residentś Association. With all these multifarious activities, Dr. Rao cherishes even today many pleasant memories of his boyhood or the early phase of his brilliant career. His visits to Banavasi temple, Jogfalls and his adventures there, cultural atmosphere that he had in his respected family, access to Kannada literature and epics are but a few of these memories that he narrates so emotionally. All these experiences industriousness and ceaseless efforts transformed his personality into a great archaeologist and a profound scholar in his field. Known for hard work and scholarship, Dr. Rao is a remarkable example for a living archaeologist of the first order in India.

Dr. S.R. Rao is at present engaged in exploring the submerged cities of ancient India such as Dwāraka, Gharapuri (Elephenta) Kalenganagara and Kāveripaṭṭinam under the auspices of the Indian National Science Academy, particularly under its prestigious scheme of Marine Archaeological studies in Indian waters. When a team of oceanographers recently sailed from the Tenjavur coast in Tamilnadu to make a hydrographic survey of Kāveripaṭṭinam, the submerged ancient port-city, it actually marked the beginning of a science of marine archaeology, so far unexplored in India. With it was embarked an ambitious project of making marine archaeological surveys of Indian coastline. Besides Kāveripaṭṭinam, the historic Dwāraka in Gujarat where Dr. Rao has already done some excavations like in Kāveripaṭṭinam, Udyāvara in Dakshina Kannada has also been selected for under water archaeological excavations. It is in the National Institute of oceanography, Panjim, the country's premier oceanograpbical Research Laboratory, that this well-known archaeologist has been working hard as the head of the Marine Archaeology cell. According to Dr. Rao, these studies are vitally important for reconstructing India's navigational history. Unlike the archaeological sites on land, the under water archaeological sites lie undisturbed and undoubtedly contain more antiquities. Not only will this type of underwater archaeological survey help us to understand our ancestor's migration routes and cultural contacts with the outside world but also reveals man's struggle to overcome the dangers of the sea. The behaviour of the sea through the ages, especially erosion and sedimentation, can also be understood and used to forecast the trend for the centuries to come. No doubt Dr. Rao has a hard task ahead in excavating ancient port-cities and salvaging ship-wrecks. With some sophisticated equipments like underwater camera side-scanning souar and with the help of expert divers he is confident to find clues to the causes of submergence, and desturction of ancient ports and rise and fall of maritime civilisations. He has chosen first Kāvēripaṭṭinam for exploration for he had done already some basic excavation work there some thirteen years ago. Dr. S.R. Rao is bristling with new excitement over an ambitious project prepared by him in collaboration with NIO scientists for extentive underwater exploration including salvaging some ship wrecks. He has already colleted necessary archival data relating to the the ship wrecks both in natural calamities and in naval battles. He knows very well that salvaging ship wrecks will be an even more difficult task than actually uncovering the port cities. He has already correlated archival data with ship wrecks mentioned in hydrographic maps. He may come up with astonishing findings in the sea bed as he has already come up with his *magnum opus The decipherment of Indus Script*, unraveling the mystery which has defied solutions for more than six decades.

APPENDIX

Reports, Books and Articles by Dr. S.R. Rao

1. **Excavation Reports :**

   Excavations at Rangapur and other Explorations in Gujarat —*Ancient India* Vol. 18 and 19.

2. **Books :**

   1. *Bharatiya Puratatva* (Kannada), Bangalore, 1961.
   2. *Amreli—A Kshatrapa-Gupta Town*, Baroda, 1966.
   3. *Adya Aitihasika Samskritiyon* (Gujarati) (*Gujaratno Rajakiya ane Samskritika Ithihasa*, Vol. I —Edited by R.C. Parikh, Ahmedabad, 1972.
   4. *Lothal and the Indus Civilization*, Bombay, 1973.
   5. *Lothal—A Harappan Port-town* (in two volumes) Memoirs of the Archaeological Survey of India (No. 78) Vol. I, Delhi, 1979.
   6. *Traditional Paintings of Karnataka*, Bangalore, 1980.
   7. *The Decipherment of the Indus Script*, Bombay, 1982.

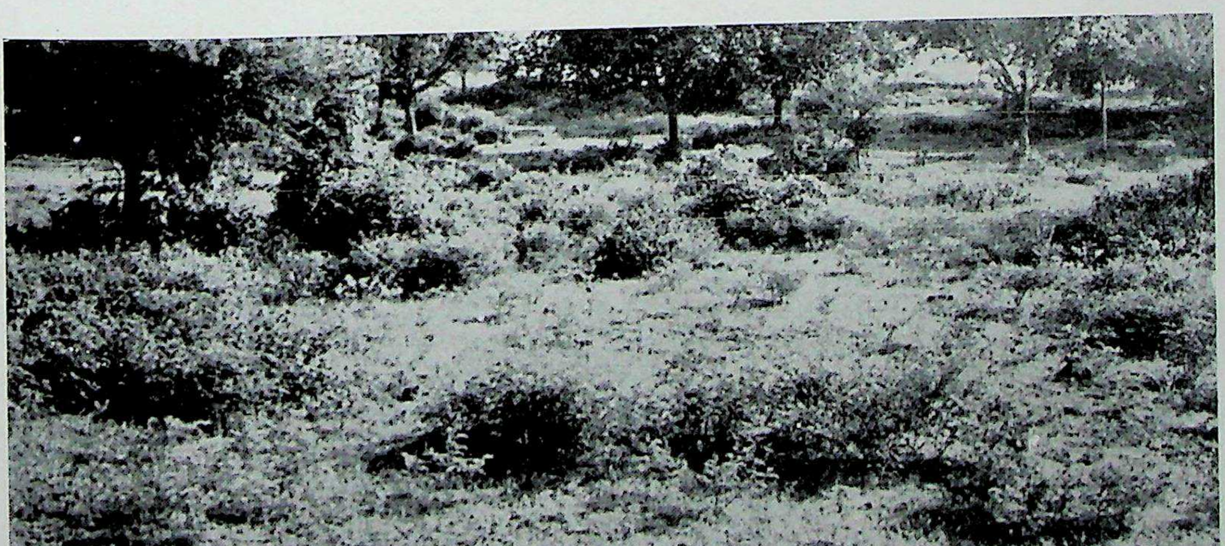
3. **Research articles in learned journals and periodicals :**

   1. 'Belagutti Kaifiyats'—Quarterly journal of the Mythic Society (QJMS), Vol. XXXV-No. 2, (1944) pp. 61-71.
   2. 'Belagutti Arasus'—*QJMS*, Vol. XXXVI No. 2 (1945) pp. 84-90.
   3. 'Belagutti Records'—*Summary of the Papers read at the XV session of the All India Oriental Conference* Bombay, 1949.
   4. Problems at Amreli—*Abstract of Papers read at the 58th session of the Indian Science Congress*, (Archaeology and Anthropology section), 1952.
   5. Process adopted in cleaning bronzes found from Akota near Baroda—*Journal of Indian Museums* Vol. VIII, Bombay, 1952, pp 43-46.
   6. Jaina Bronzes from Silva Deva—*Journal of Indian Museums* Vol. XI, 1955, pp. 30-33.
   7. Roads in Ancient India—*Transport Review*, Bombay, 1955.
   8. Excavations at Lothal—*Lalitakala*; Nos 3-4, 1956-7 pp. 82-89.

9. The spread of Harappa Culture in West India—*Summary of the Papers read at 20th session of the Indian History Congress* Section I (Ancient India), 1957.
10. Lithic tool industries of the Chalcolithic cultures in west India—*Ibid.*
11. Excavations at Lothal—*March of India*, 1960.
12. Excavations at Lothal—*Illustrated London News* (Feb. 11-March 5), 1961.
13. Ceramics of the Indus Valley in Gujarat—*Marg*, Vol. XIV (June 1961) No. 3, pp. 20-27.
14. Discovery of Lothal—*India*, London, 1961.
15. Lothal and West India—*Summary of the papers read at the symposiym of Asian Archaeology*, New Delhi, 1962.
16. A Persian gulf seal from Lothal—*Antiquity*, Cambridge, June 1963.
17. Shipping and Maritime trade of the Indus people—*Expedition* Vol. 7-No. 3, Philadelphia, 1965.
18. Port and planned town of 4000 years ago—*Yojana*, New Delhi, 1965.
19. Contacts between Lothal and Susa—*XXVI International Congress of Mentalists*, New Delhi and in—George L. Possehl (Ed) *Ancient Cities of the Indus*, New Delhi, 1979, pp. 174.
20. Further Excavations at Lothal—*Lalitkala*, No. 11, New Delhi, 1965.
21. Mesopatomia—*Tamil Encyclopaedia*, Madras, 1967.
22. Nilamangala grant of Venkata II 'Saka 1954'—*Epigraphia Indica.*
23. Shipping in Ancient India—*India's Contribution to world thought and Culture*, Madras, 1970.
24. Excavations at Lothal, A port city of the Indus Civilization—*Archaeologia*, Paris, May-June 1969.
25. Discovery of Buddhist Remains at Pauni, District Bhandara (in French)... *Archaeologia*, Paris, 1969.
26. *Presidential Address to the History Conference on Keladi*, (1969), G.S. *Dikshit*, *Studies in Keladi History*, Bangalore, 1979.
27. *Presidential Address to the History Conference* (held on the occasion of the Golden Jubilee Celebrations of Karnataka Historical Research Society, Dharwar, 1971).
28. A Note on the Chronology of Early Chalukyan Temples—*Lalitkala*, No. 15, 1971.
29. Indus Script Deciphered—*Illustrated weekly of India*, Dec. 16, 1971.
30. Soviet Monuments, sites and Museums, 1-11—*Socialist India*, New Delhi, June 17-24, 1972.
31. Archaeology since Independence—*Socialist India*, (Independence Day Silver Jubilee Volume) New Delhi, 1972.
32. Excavations at Kanheri—S.H. Ritti and B.R. Gopal (Eds), *Studies in Indian History and Culture*, Dharwar, 1971, pp. 113-6.
33. The Indus script-Methodology and Language—*Radio Carbon and Indian Archaeology*, Bombay, 1973.

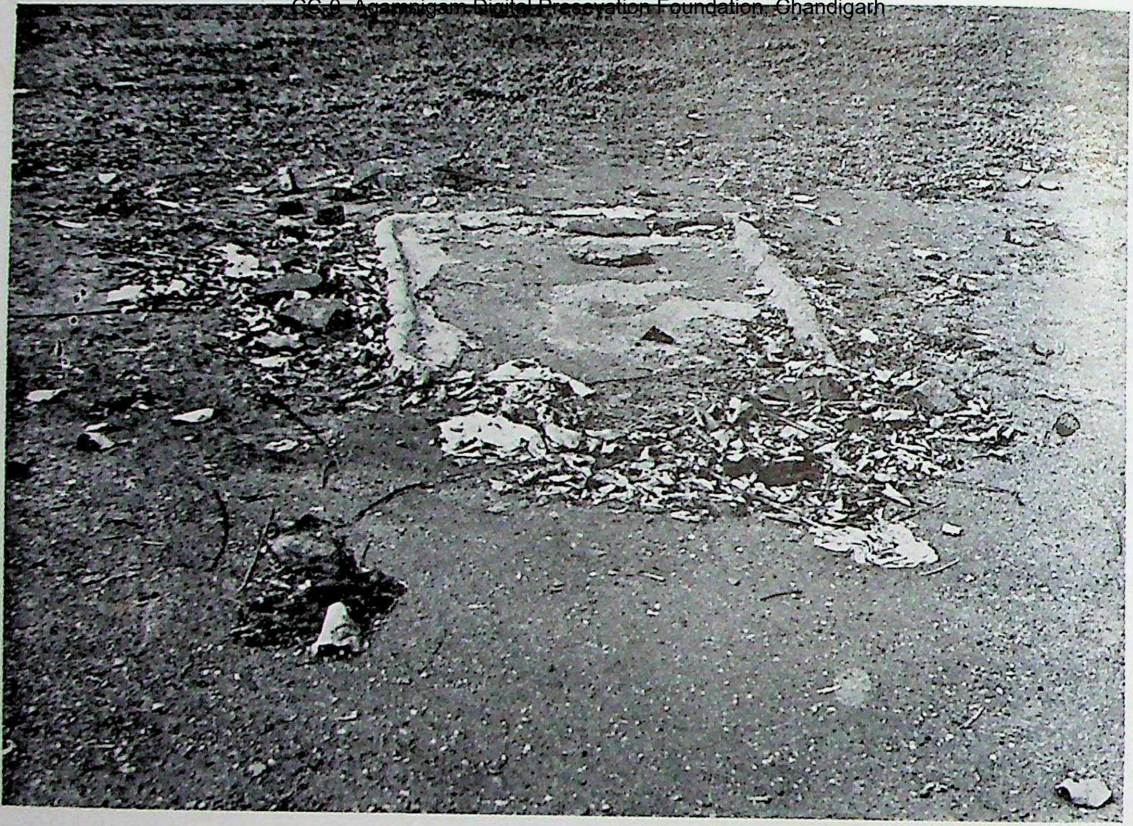
34. Carbon-14, dates as applicable to Harappan sites—*Archaeology*, Bombay, 1973.
35. Recent Discoveries in Aihole and Pattadakal—K.V. Ramesh and others (Eds) *Srikanthika*, Mysore, 1973.
36. Indus Valley Bronzes from Diamabad—*Illustrated London News*, March, 1978.
37. India's Past-Review of *A Cultural History of India*, ed. by A.L. Basham—*Book Review*, Vol. 11-No.4, Delhi, July-Aug. 1977.
38. Late Harappan Daimabad—*Illustrated London News*, April, 1978.
39. Indus script Deciphered—*Manthan*, Delhi, Dec. 1978.
40. The Indus people Invent the Alphabet—*Souvenior*, The Epigraphical Society of India, 5th Annual Conference, Bangalore, 1979.
41. Deciphering the Indus srcipt—*India and Foreign Review*, Nov. 15, 1979.
42. 'Persian Gulf' Seal from Lothal—Gegory L. Possehl. (Ed.) *Ancient Cities of the Indus*, New Delhi, 1979, p. 148.
43. Krishna's Dwaraka—*Indian and Foreign Review*, Delhi, March 15, 1980.
44. Indus script and Language--*Annals & Bhandarkar Oriental Research Institute*, Poona, Vol. LXI, 1980.
45. *Presidential Address*, Seventh Annual congress 8th Epigraphical Society of India, Calcutta (1981)—S.H. Ritti and Ajaymitrashastri (Eds.) *Journal of the Epigraphical Society of India*, Vol. VII, Mysore, 1982.
46. Indus script deciphered—*Bhavan's Journal*, March 15, 1981.
47. Under water Archaeology in India (Part I)—*The Indian Express*, Bombay, 1981.
48. Under water Archaeology in India (Part II)—*Ibid.*
49. New Light on Hampi (Vijayanagara)—*Souvenir* R.S. Panchamukhi Felicitation Committee (in press).
50. Trivikrama-myth or Reality—*Tattvarloka* (in press).
51. Indus script—*Sir Mortimer Wheeler Felicitation Volume* (in press).
52. The Harappan State A Hypothesis—Devahuti (Ed.) *Historical and Political Perspectives*, New Delhi, 1982.
53. New light on the post-Urban (late Harappan) phase of the Indus Civilization—*Souvenier on the Indus Civilization* (in press).
54. Was Indus script Phonetic?—*Science Today*, Bombay, March 1982.
55. Science and planning Four Thousand years Ago—*Science Today*, (June, 1982).
56. The Indus civilization and writing—Rashtrakavi Govinda Pai Samsodhana Kendra, Udipi (in press).
57. Mining and Metallurgy in Ancient India—*Abstract af papers-XV International congress of the History of Science Edinburgh.*

1. Deccan College Campus-open space

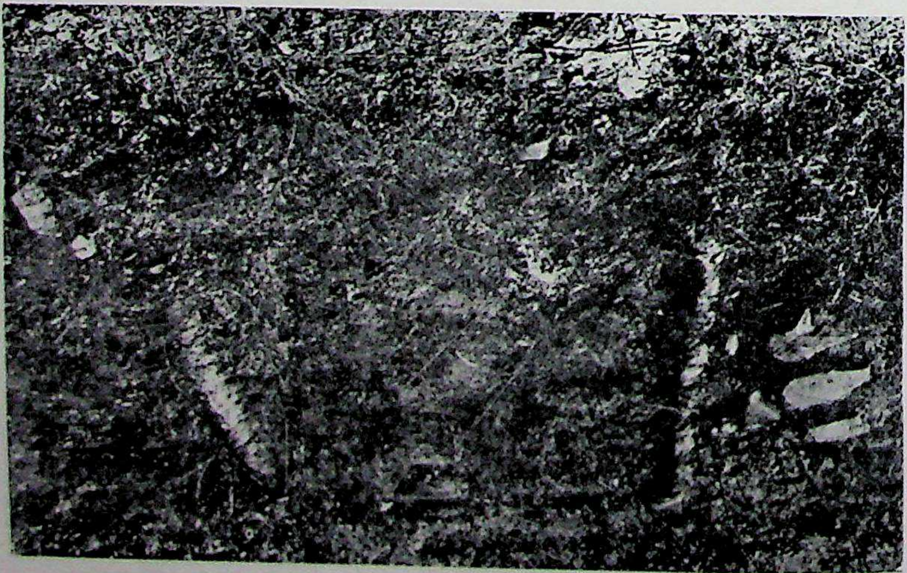


2. View in Rainy Season

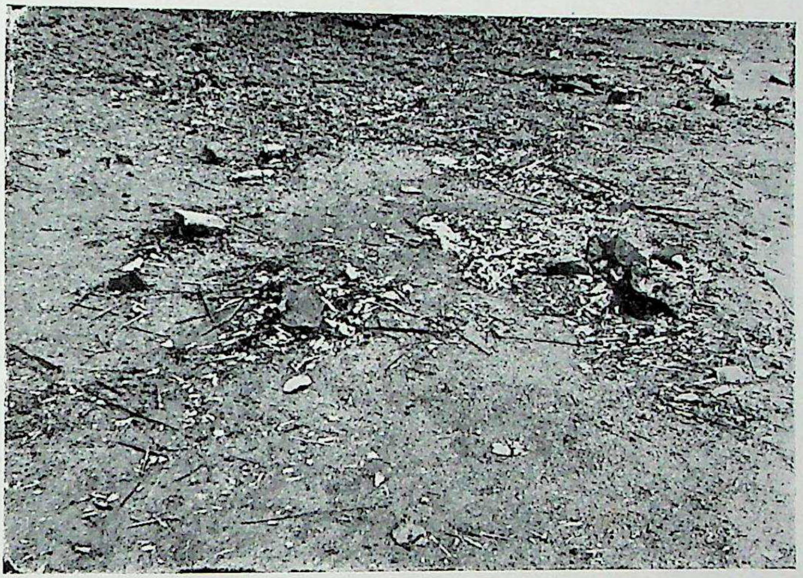
CC-0. Agamnigam Digital Preservation Foundation, Chandigarh



3. Ground plan of hut No. 1—View in dry season

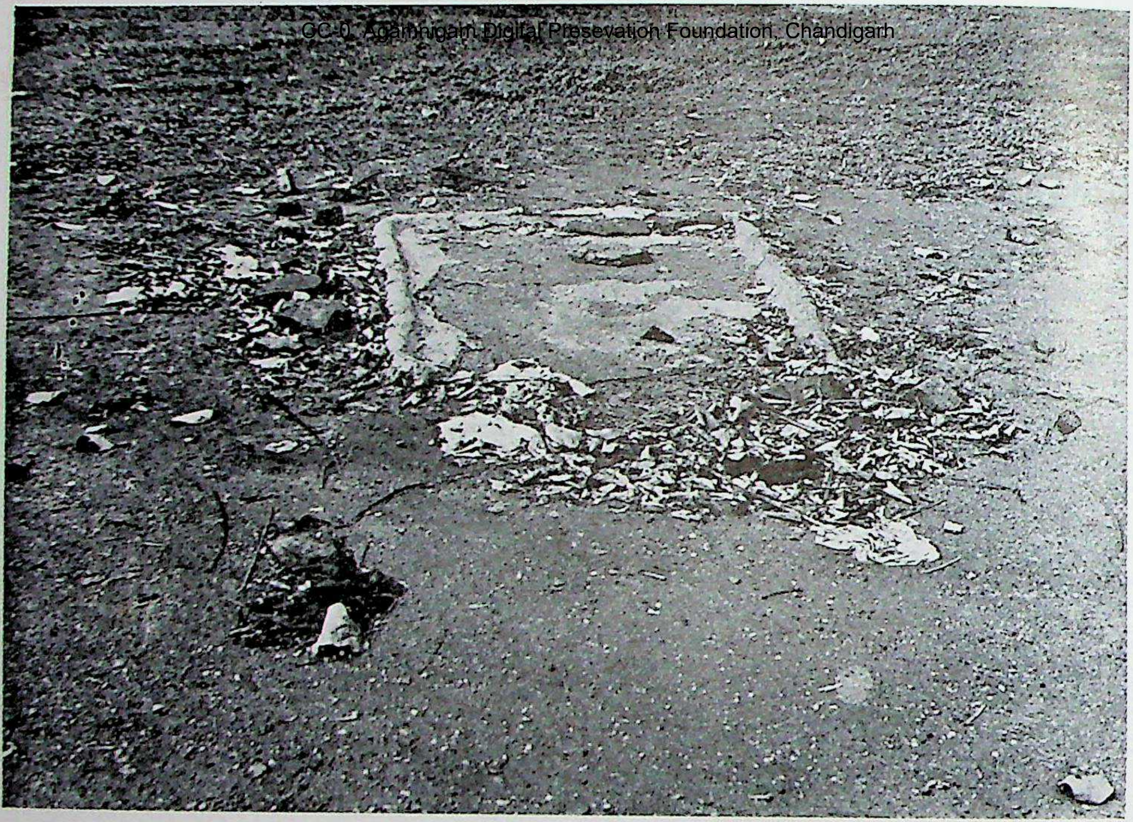


4. View in December



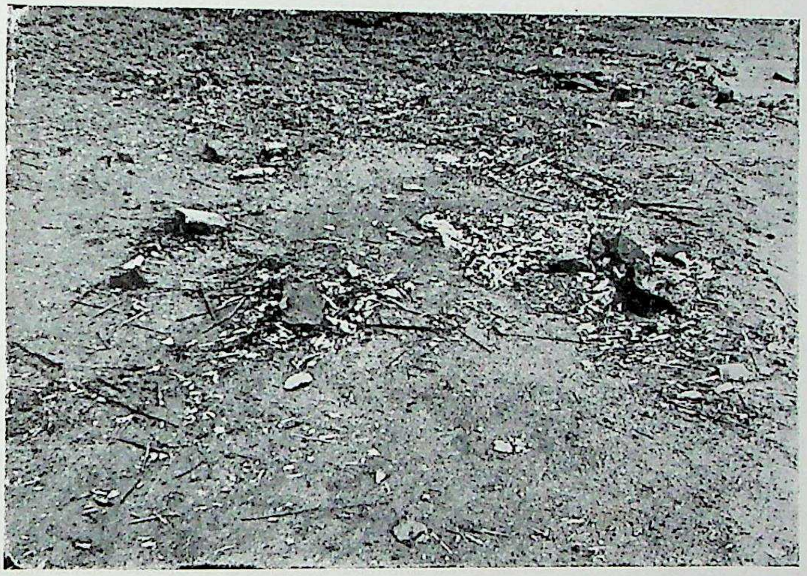
5. Ground plan in hut II—View in dry Season

6. View in December



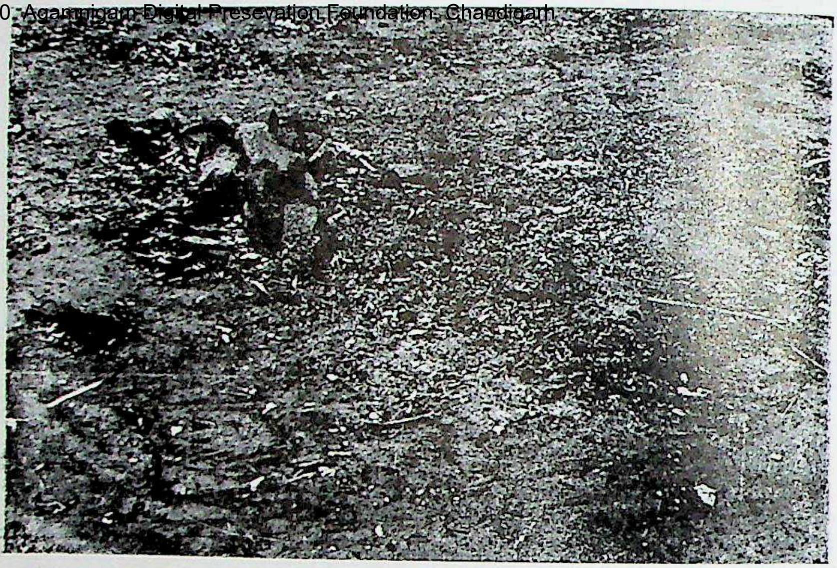
3. Ground plan of hut No. 1—View in dry season

4. View in December



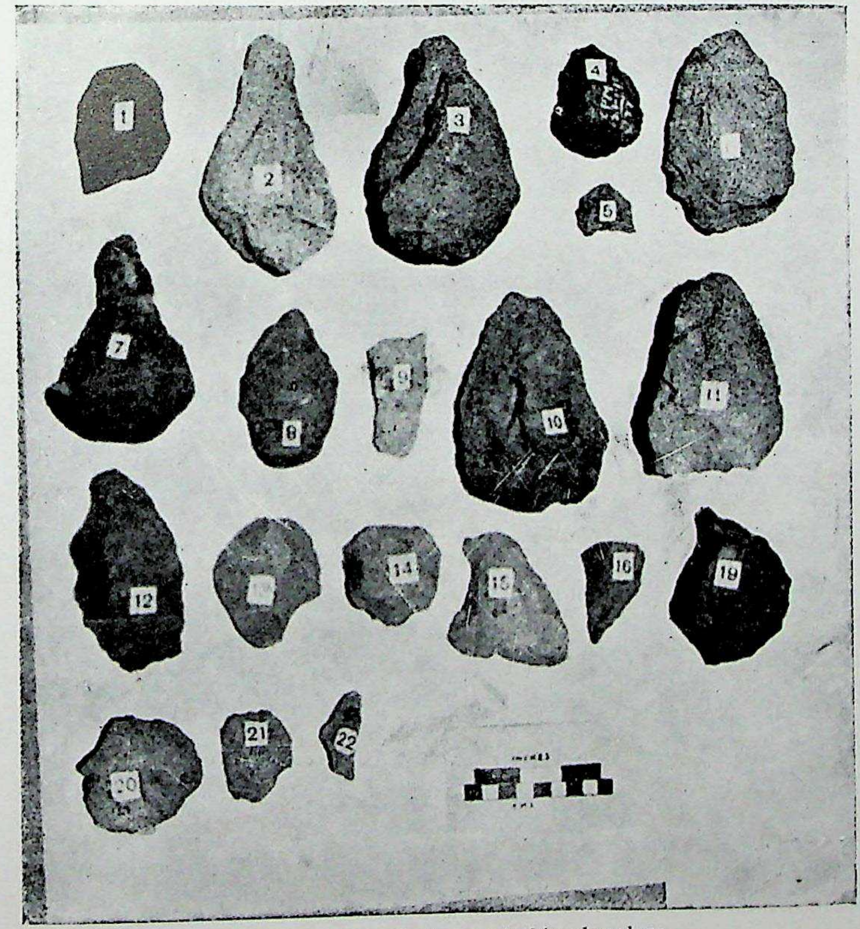
5. Ground plan in hut II—View in dry Season

6. View in December



7. View of bathing spot in dry season

8. View in October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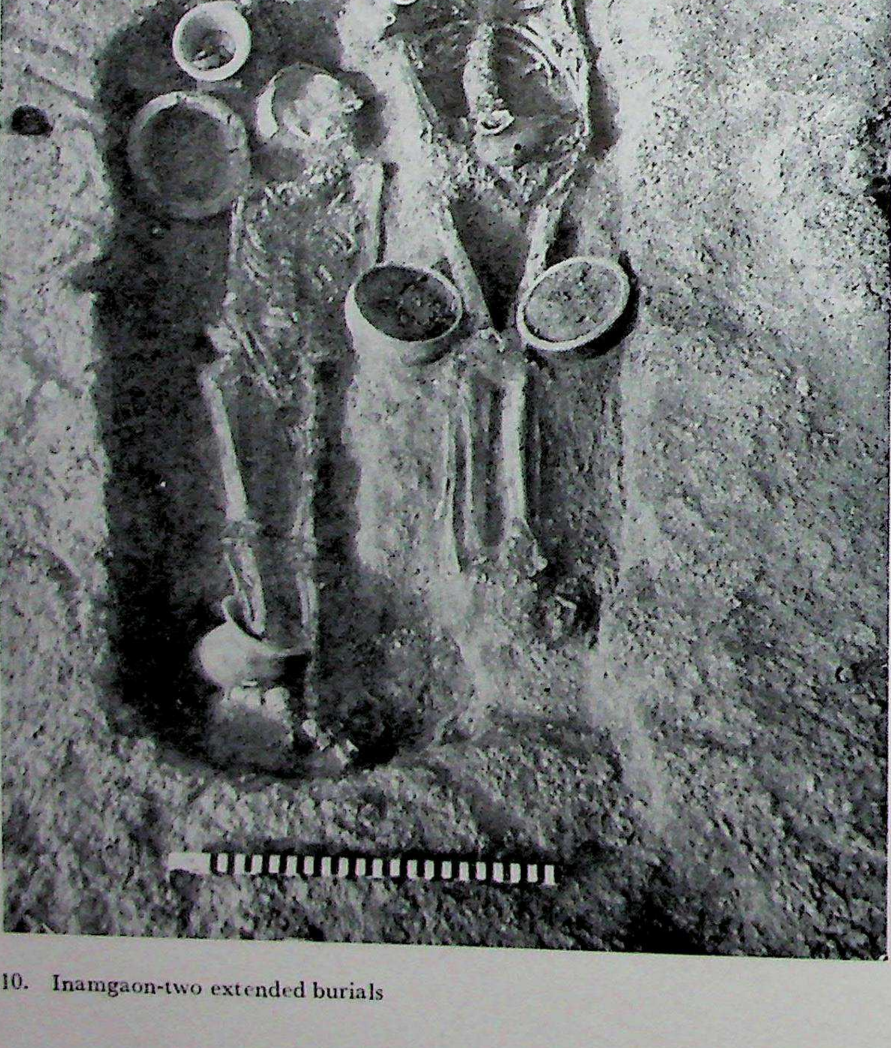
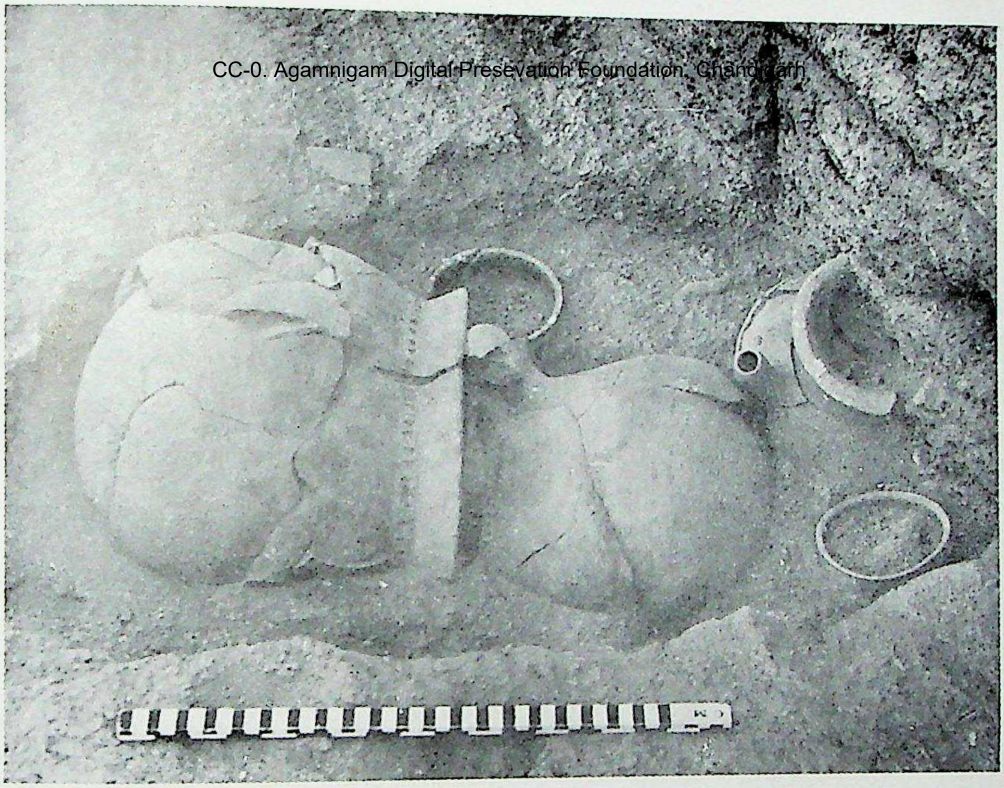
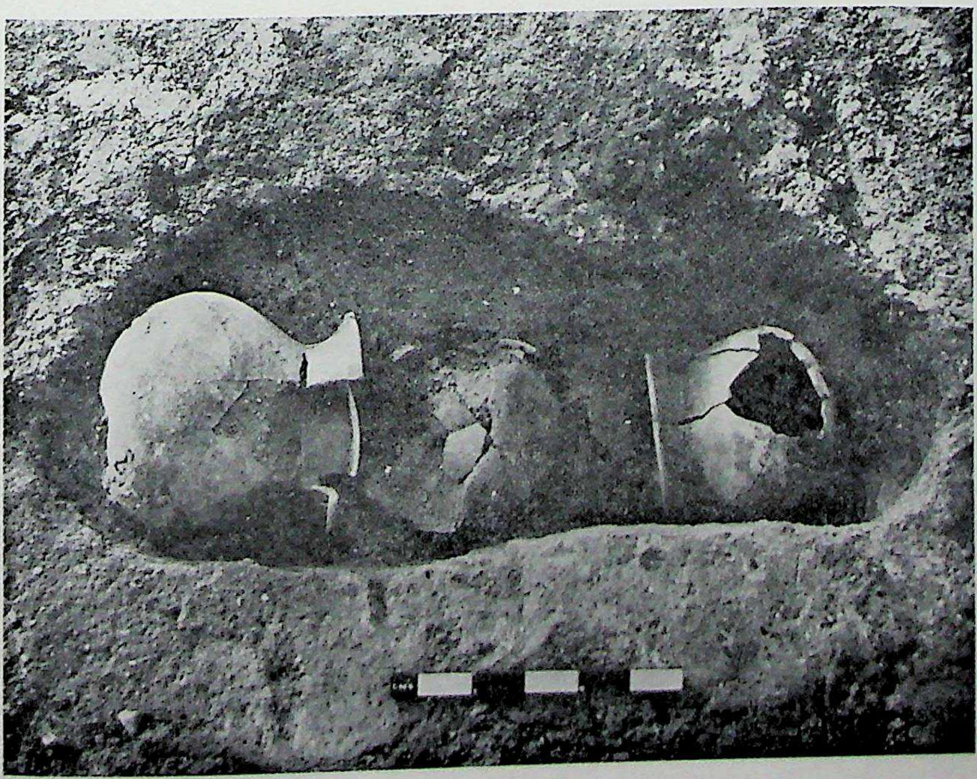
9. Lower palaeolithic tools Maratipalem and chintalapalem



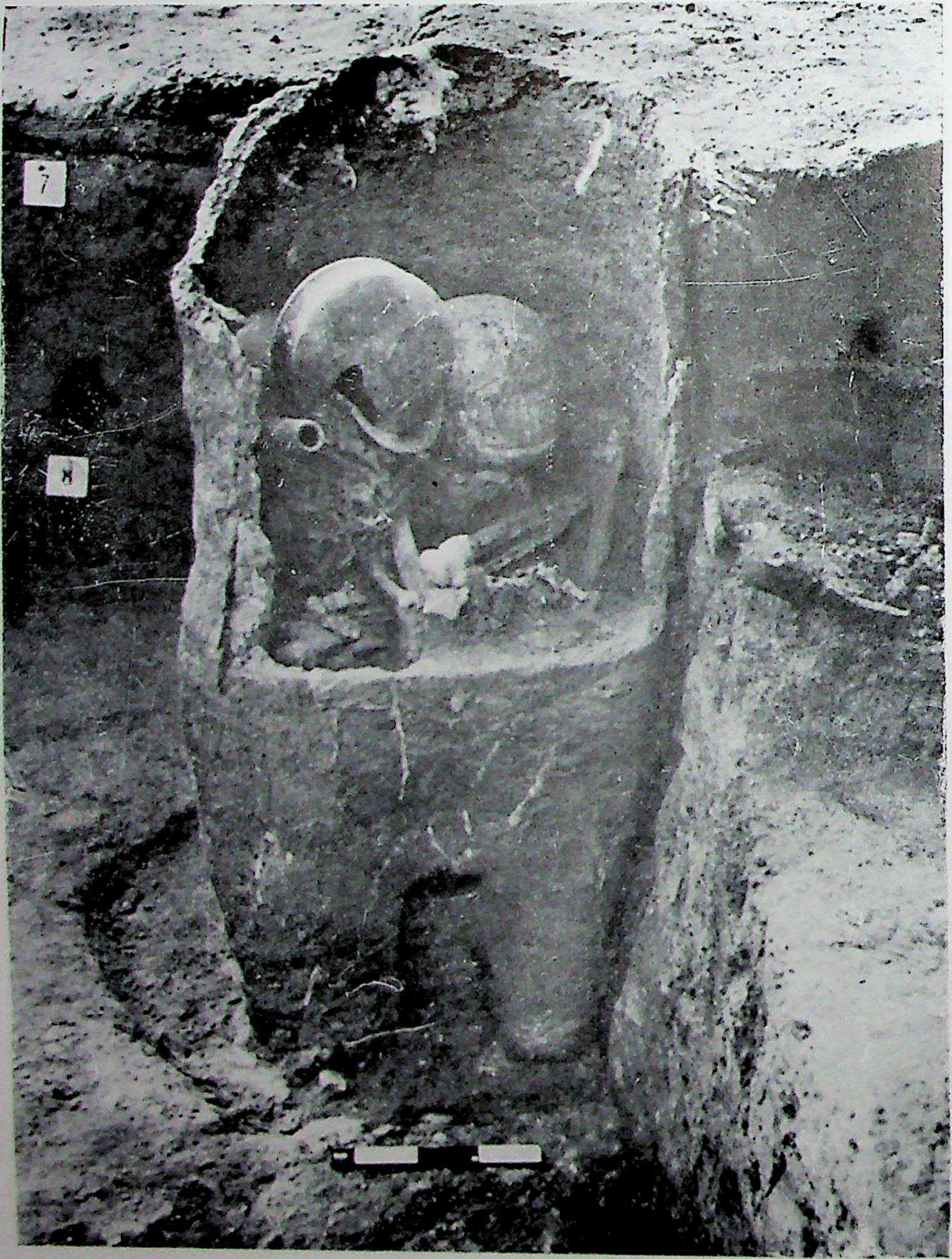
10. Inamgaon-two extended burials



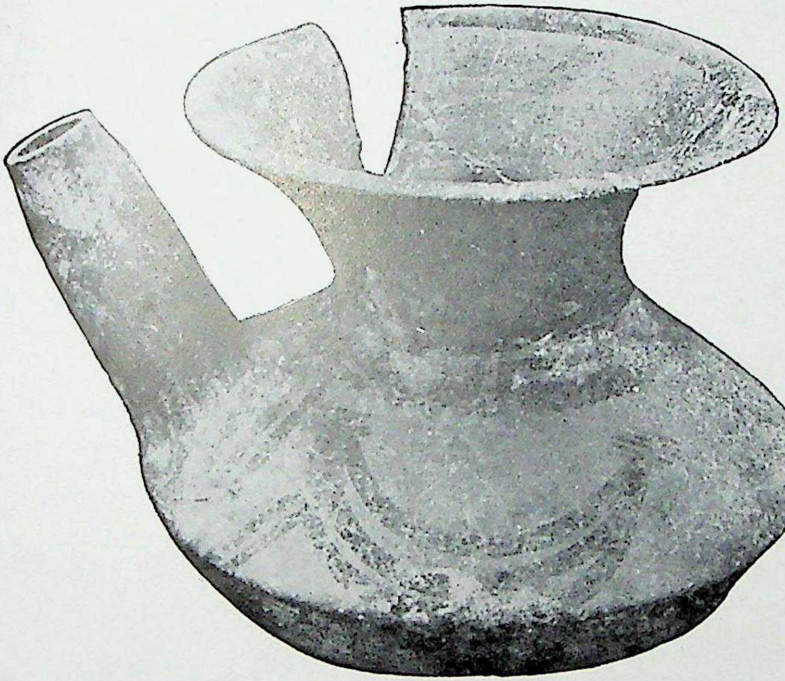
11. Inamgaon-twin urn burial of a child



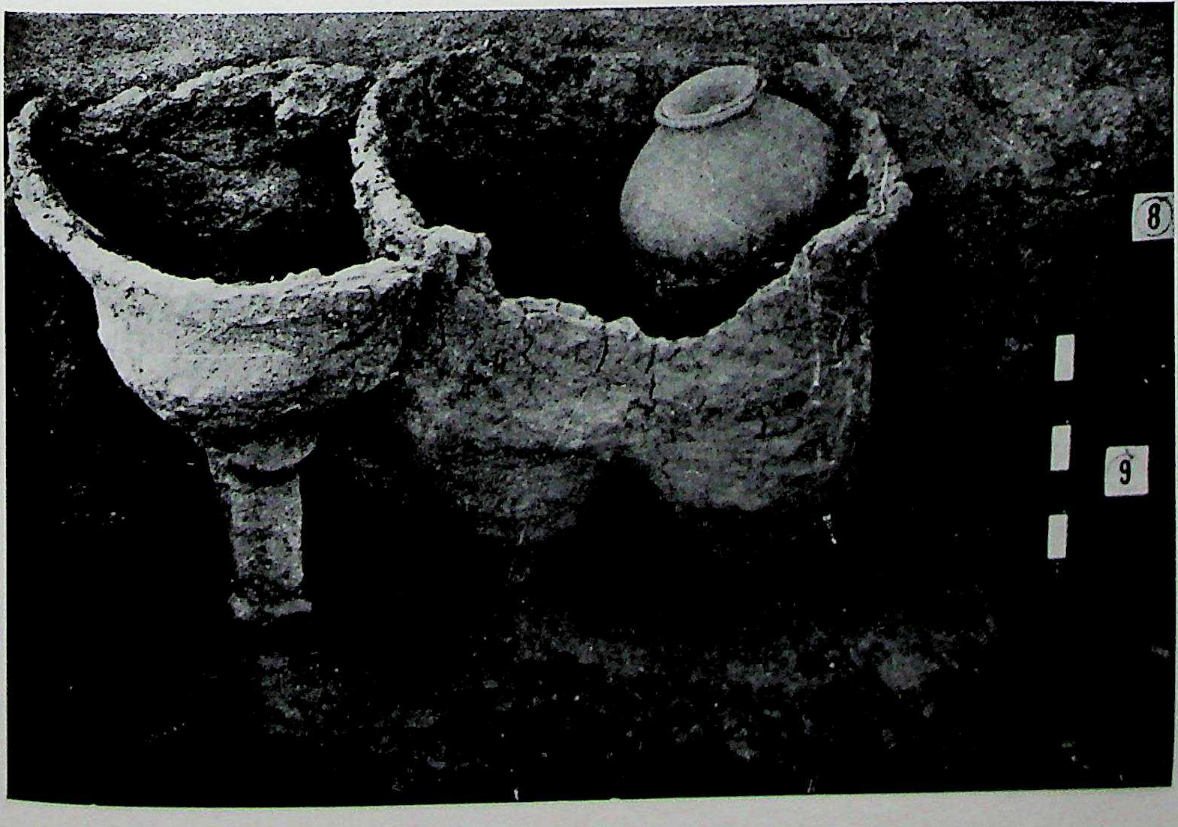
12. Inamgaon-two twin urn burials



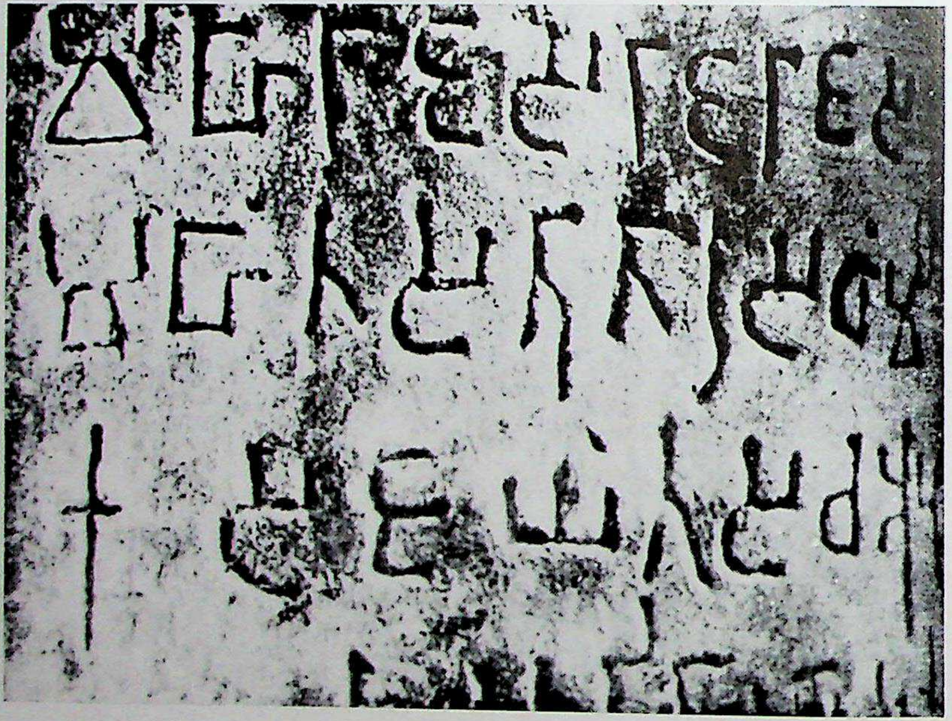
13. Inamgaon—A human skeleton in a four-legged jar



14. Inamgaon—spouted vessel with painted boat sign

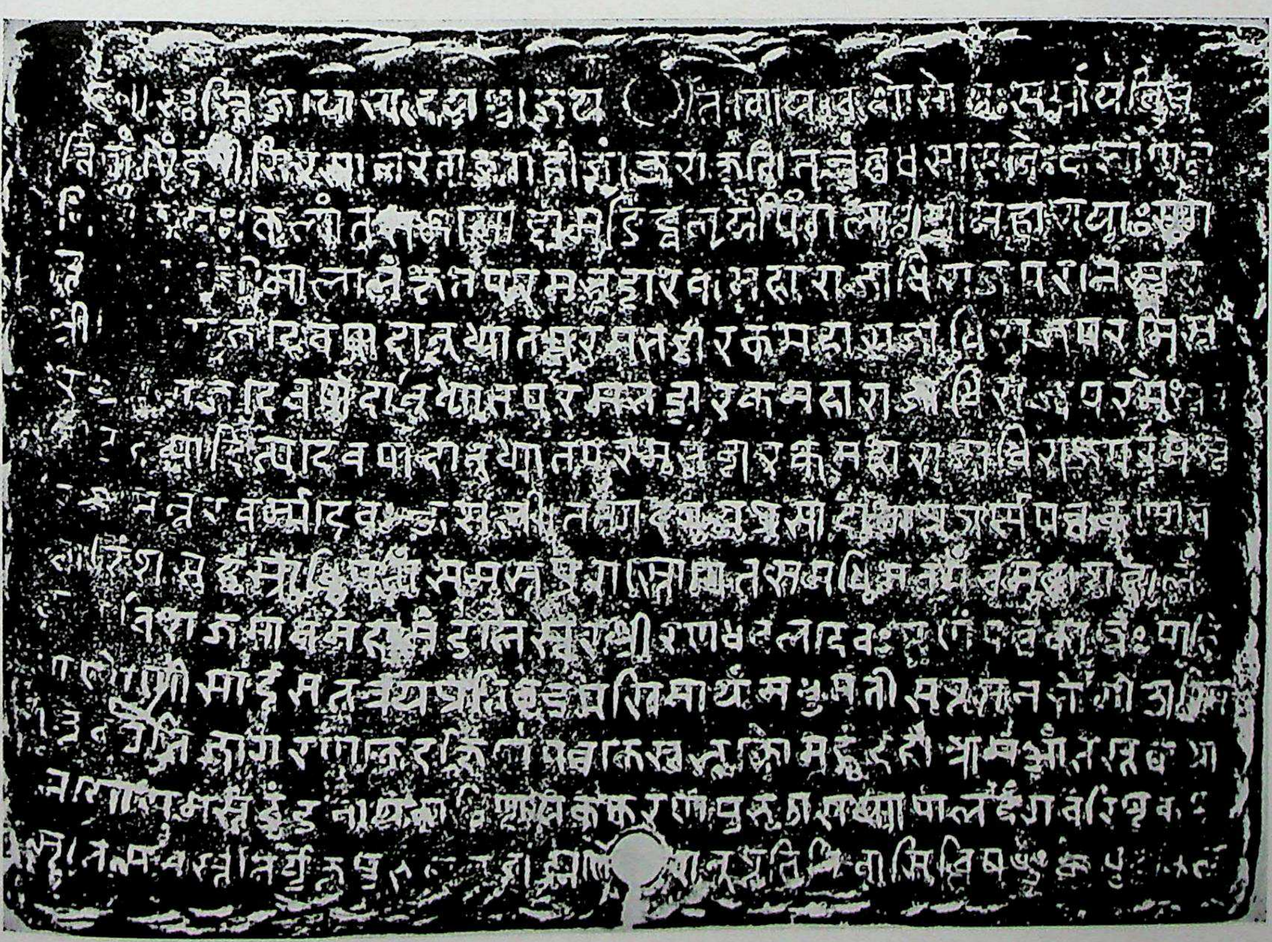


15. Inamgaon—A symbolic burial



16. Śivalinga Inscription from reh

Raipur plates of paramāra Naravarma Dēva



17. (First plate)

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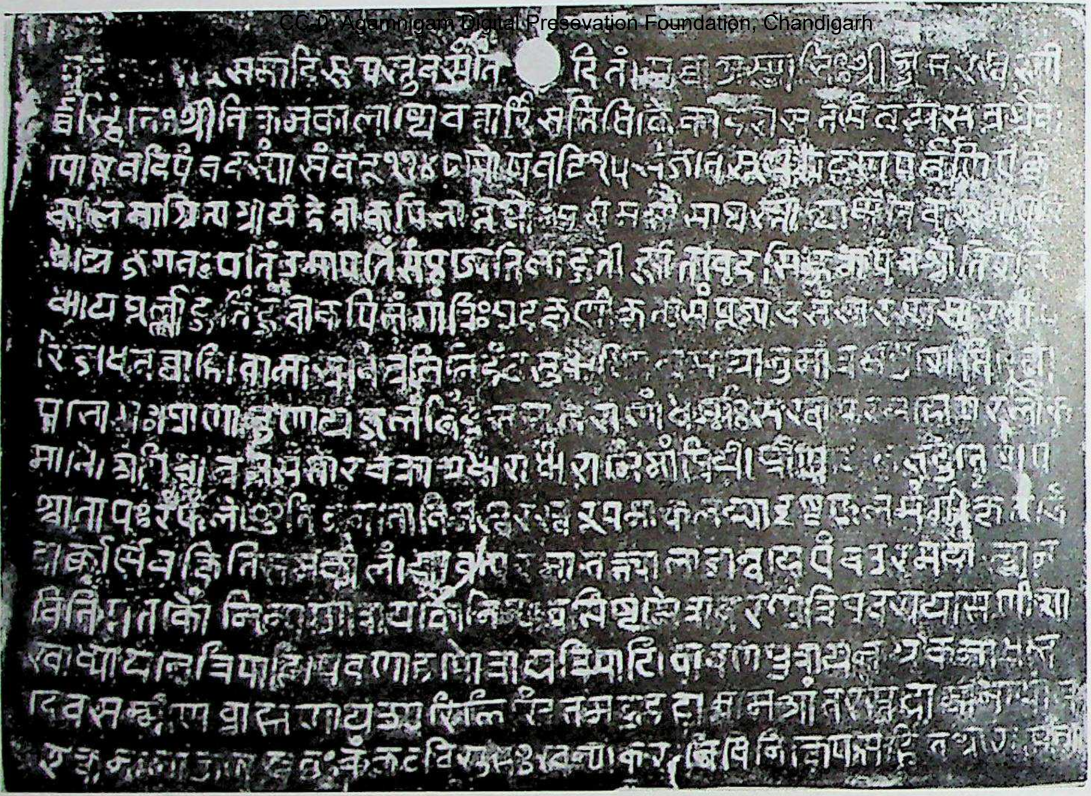
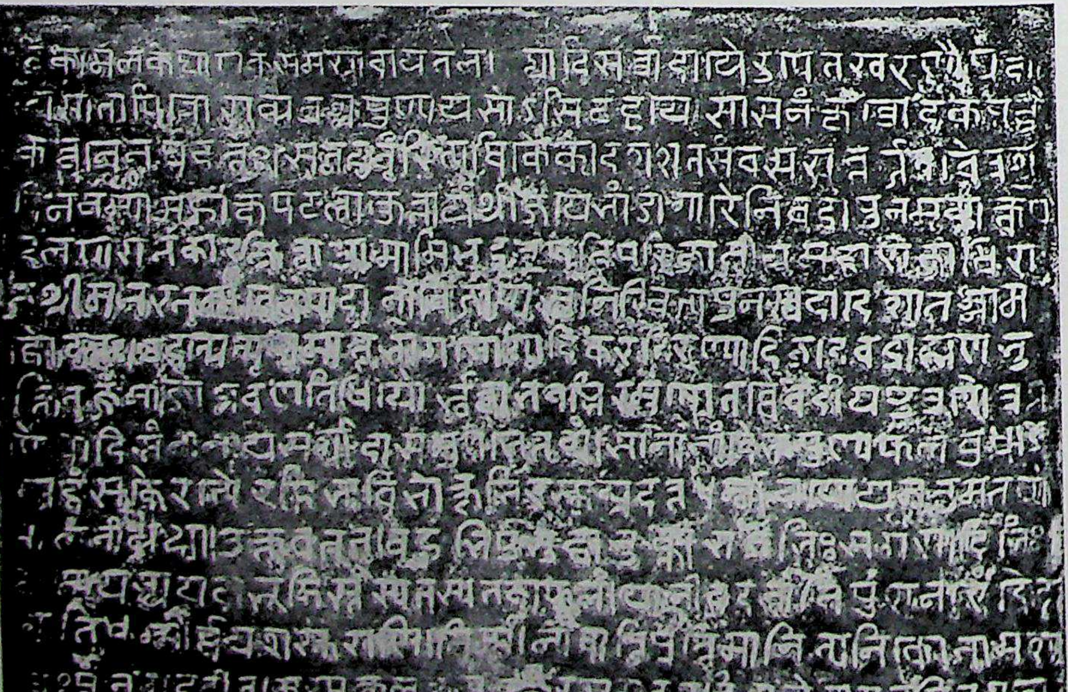
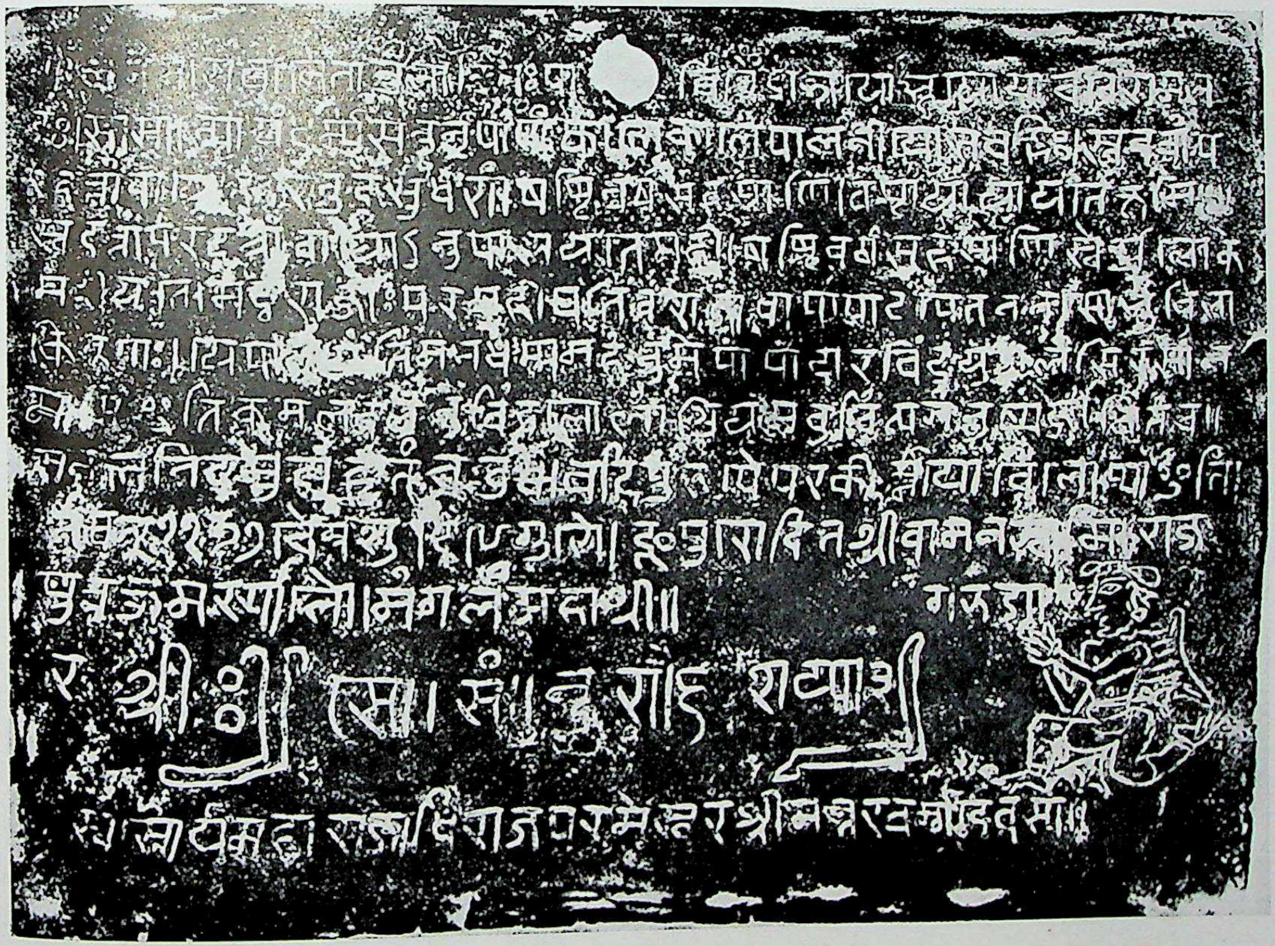


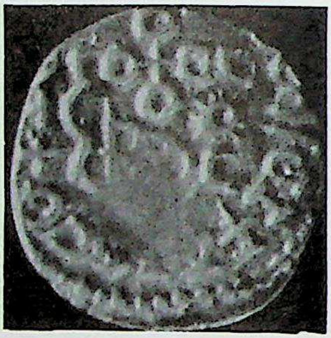
18. (Second plate : first side)



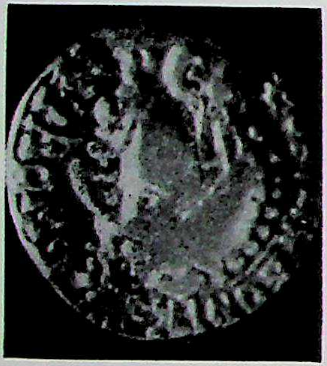
19. (Second plate : second side)



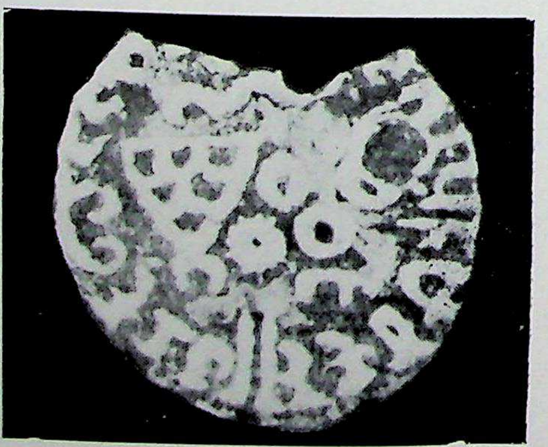
20. (Third plate)



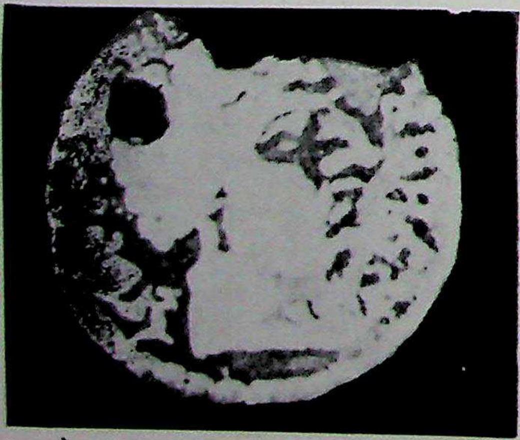
22. Reverse—Indore



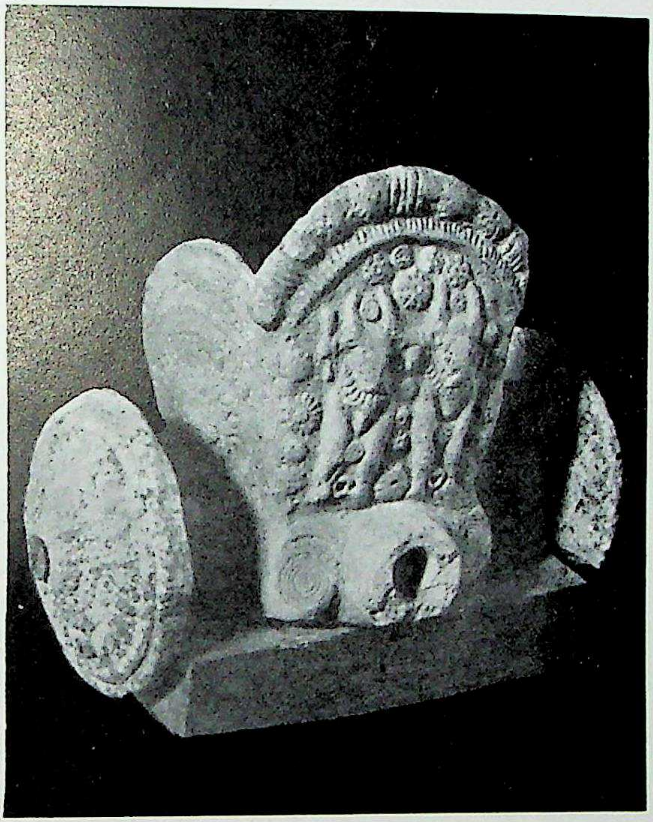
21. Obverse—Indore

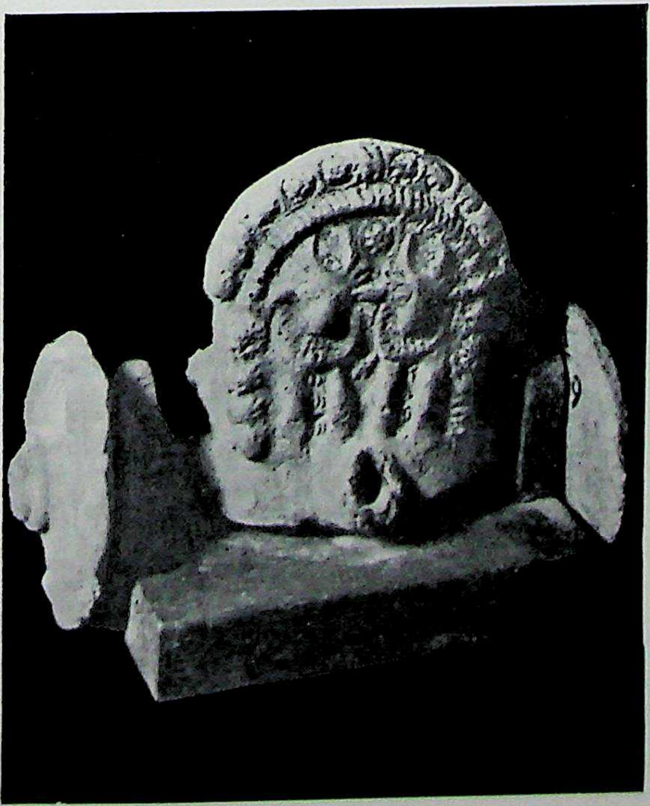


24. Reverse—Dhūlikaṭṭa

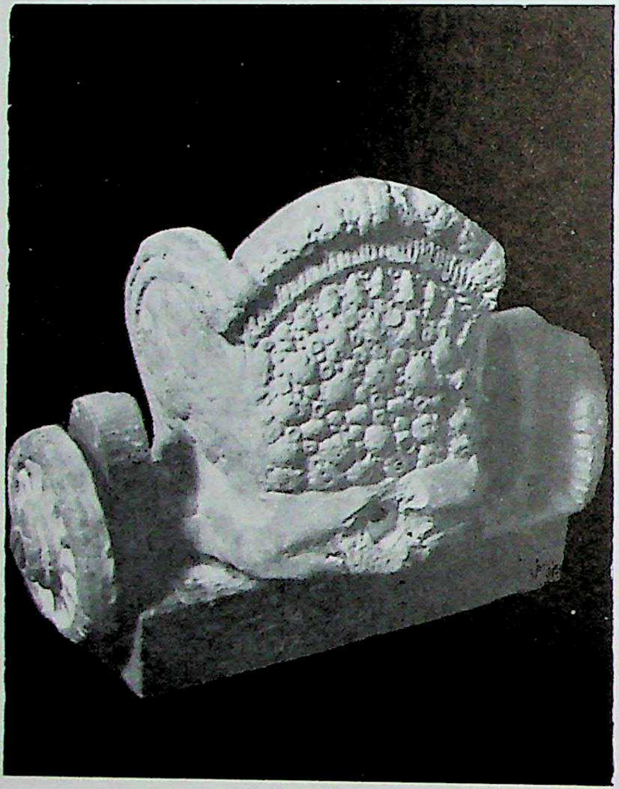


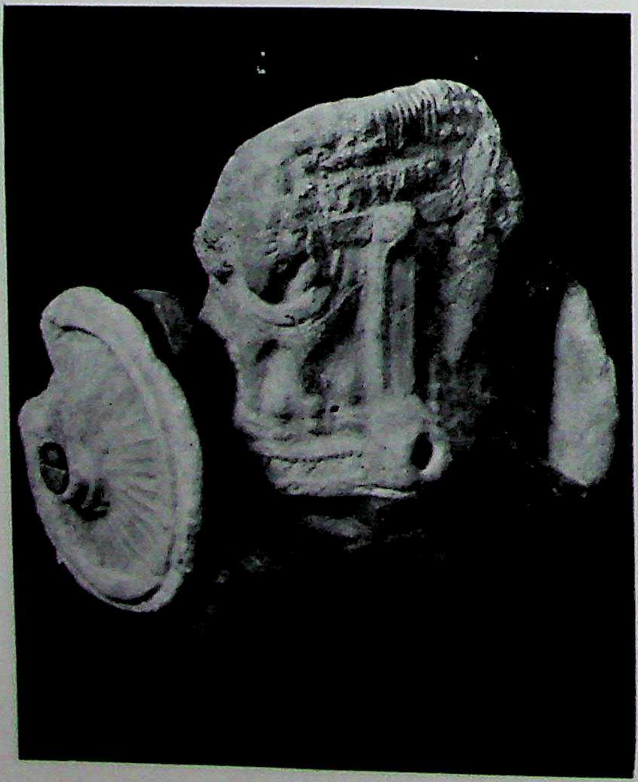
23. Obverse—Dhūlikaṭṭa





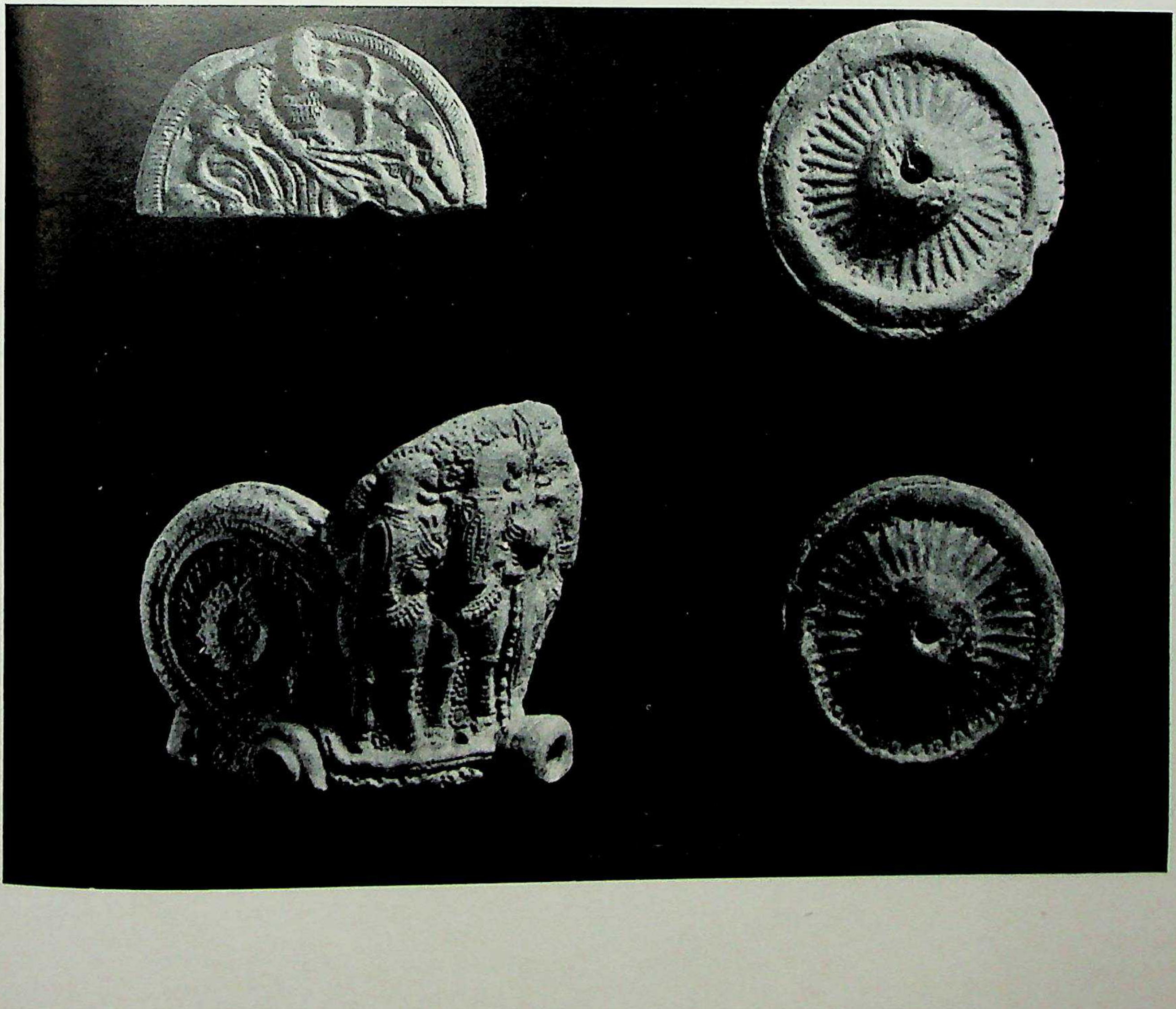
25. Kauśāmbi—Cart frames with Bullocks in front-relief

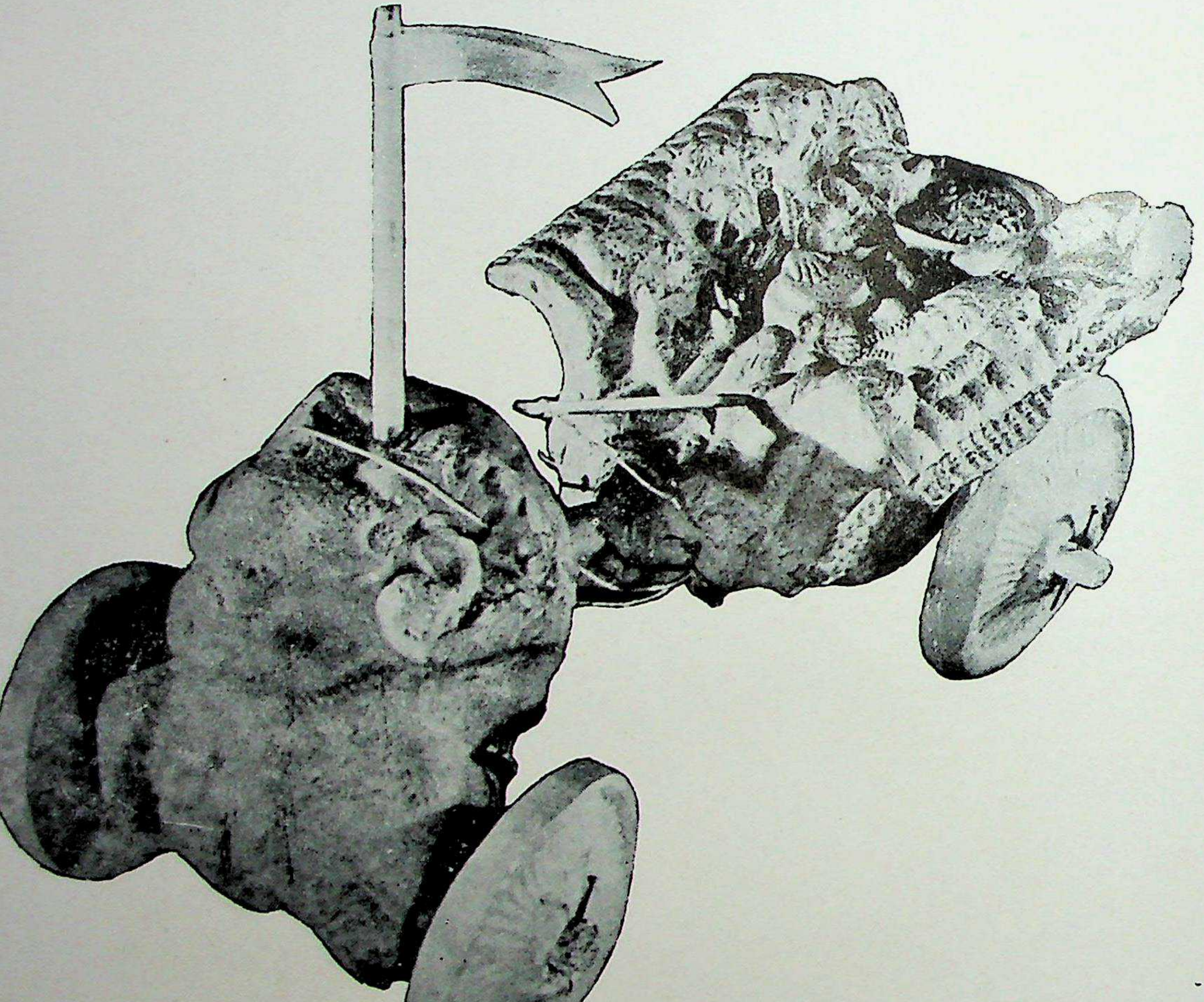




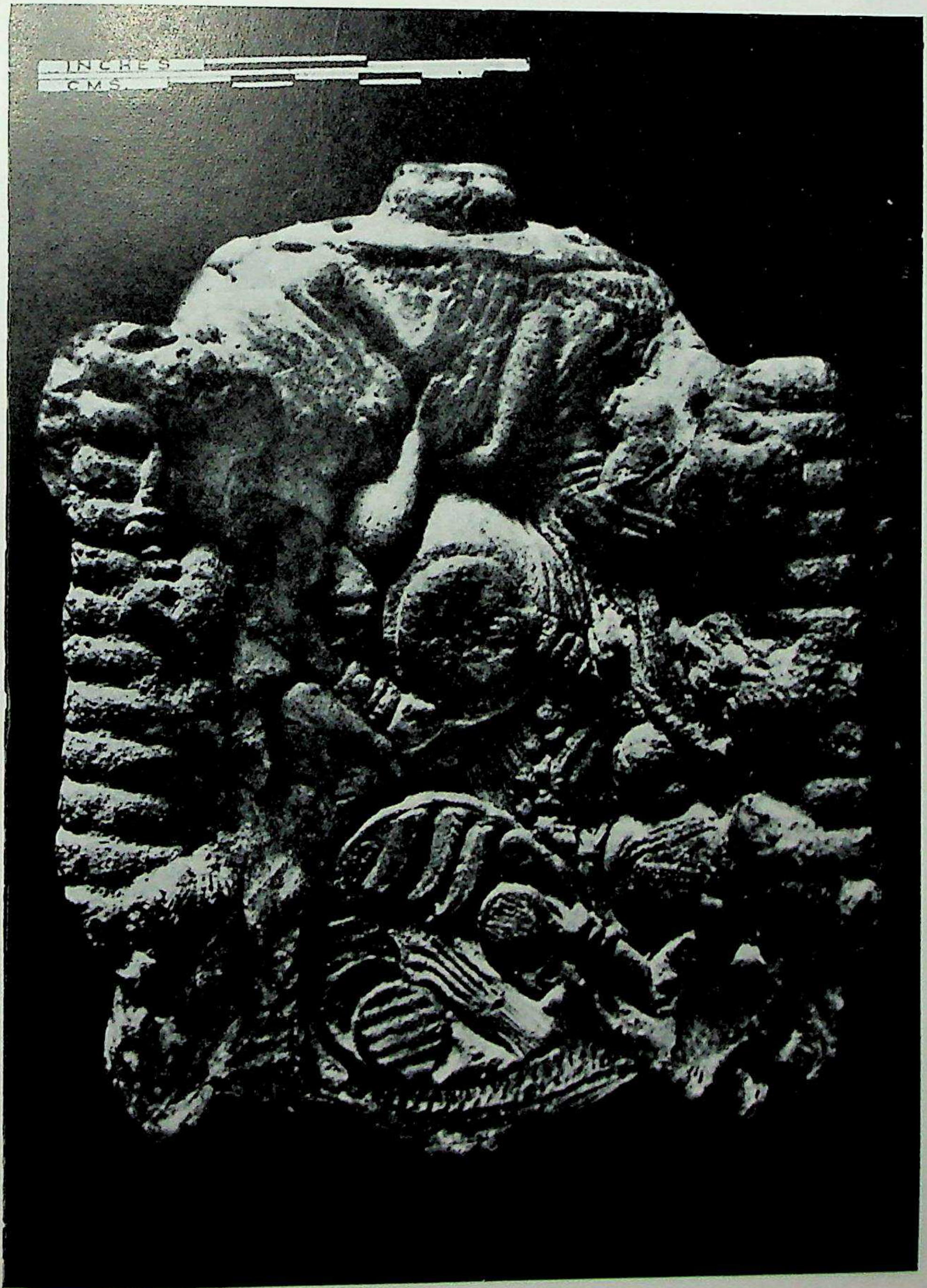
26. Kauśāmbi—Cart frames closed front in relief

27. Kauśāmbi—Cart frames with wheels—side relief with bullocks in front

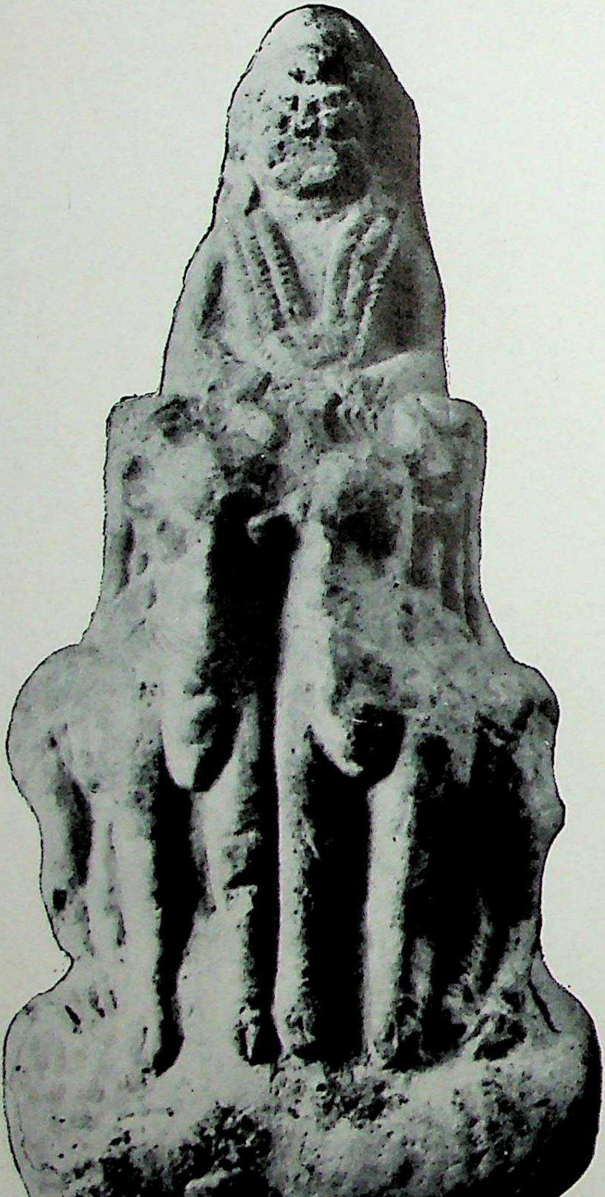




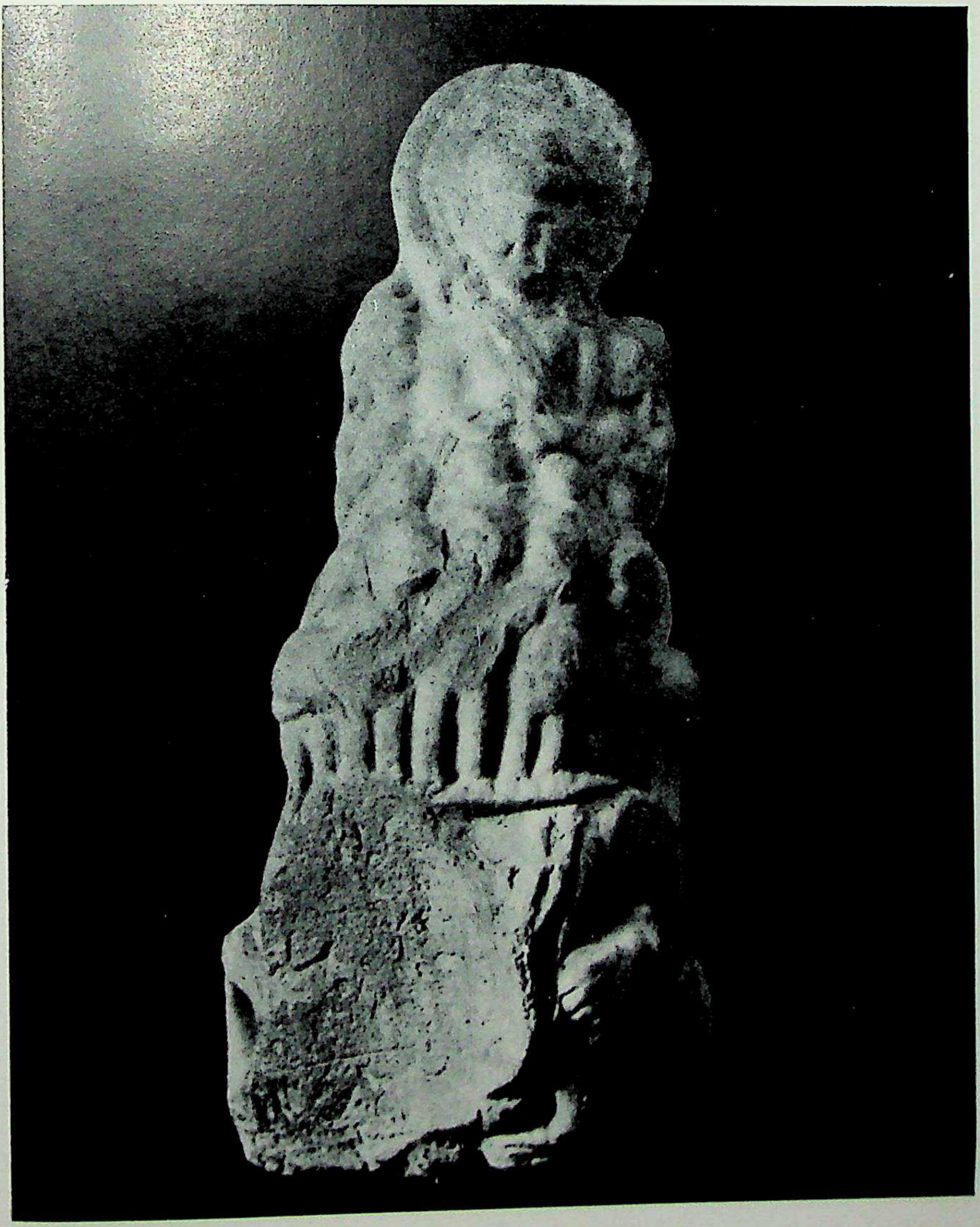
28. Kauśāmbi—Cart frame with passengers seated inside



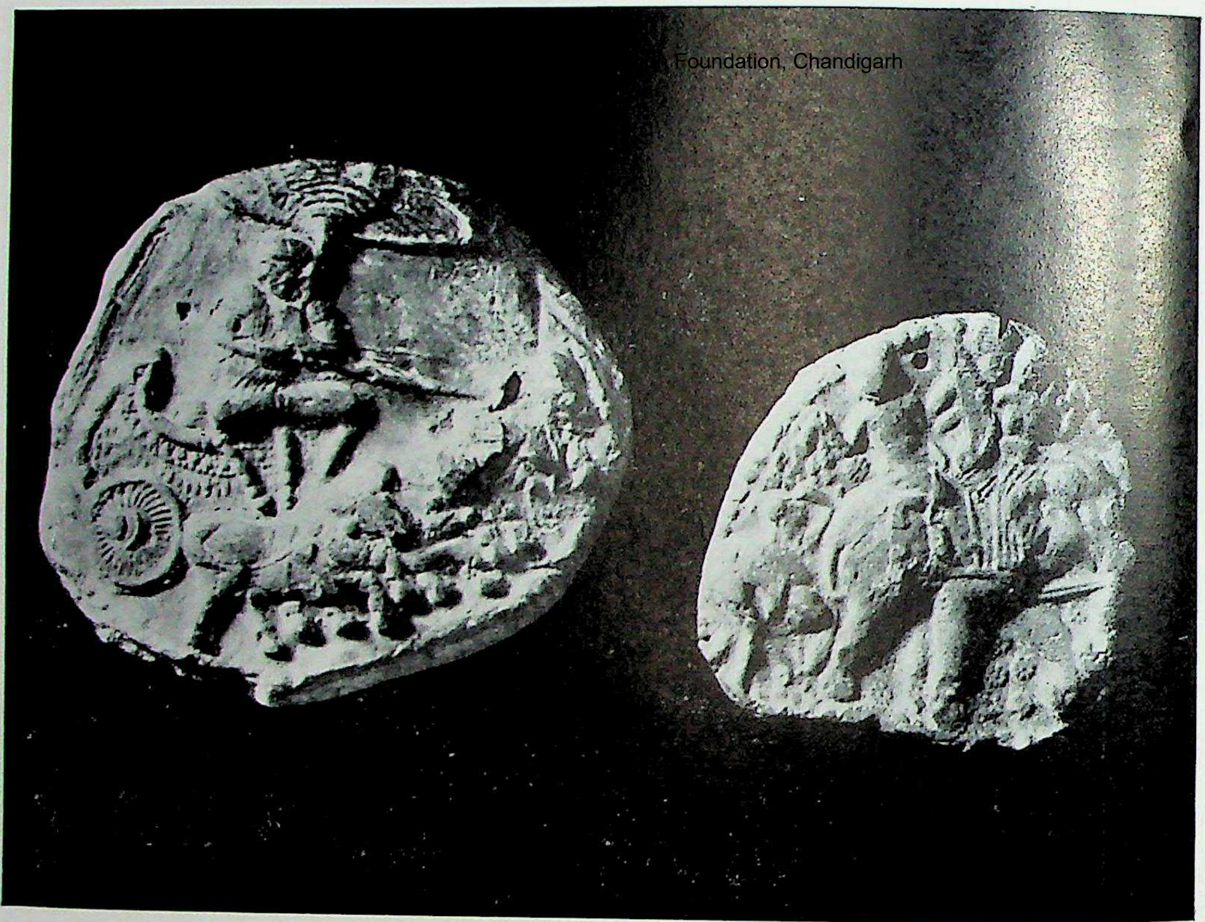
29. Kauśāmbi—cart frame details



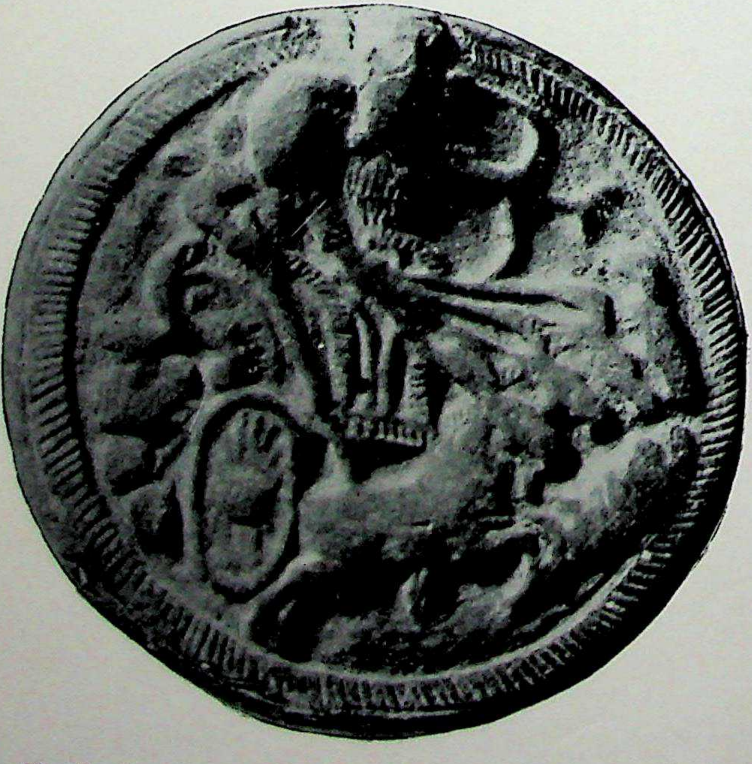
30. Chandrakētugarh—Cart frame with seated divine figure (*Agni*)



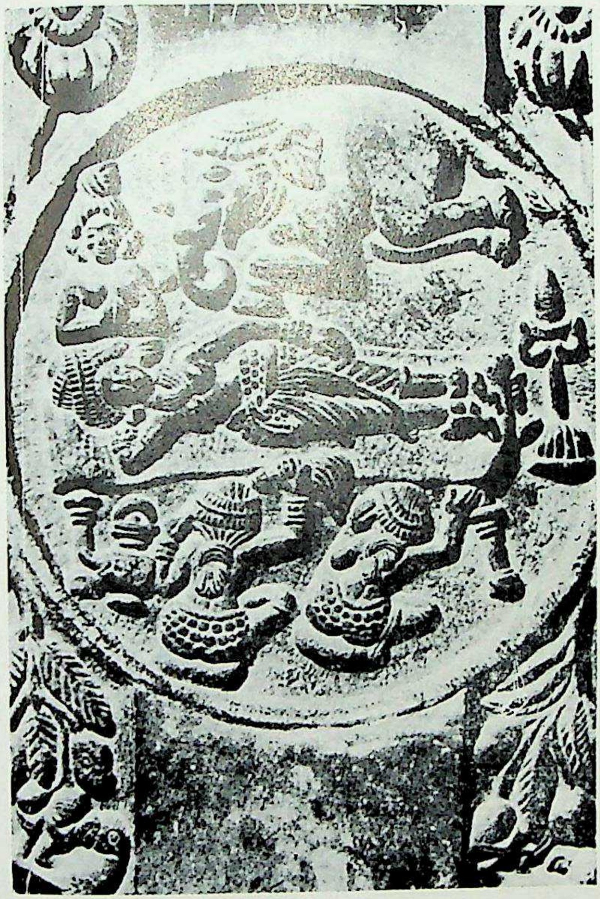
31. Chandrakētugarh—Cart frame with seated divine figure (*Indra*)



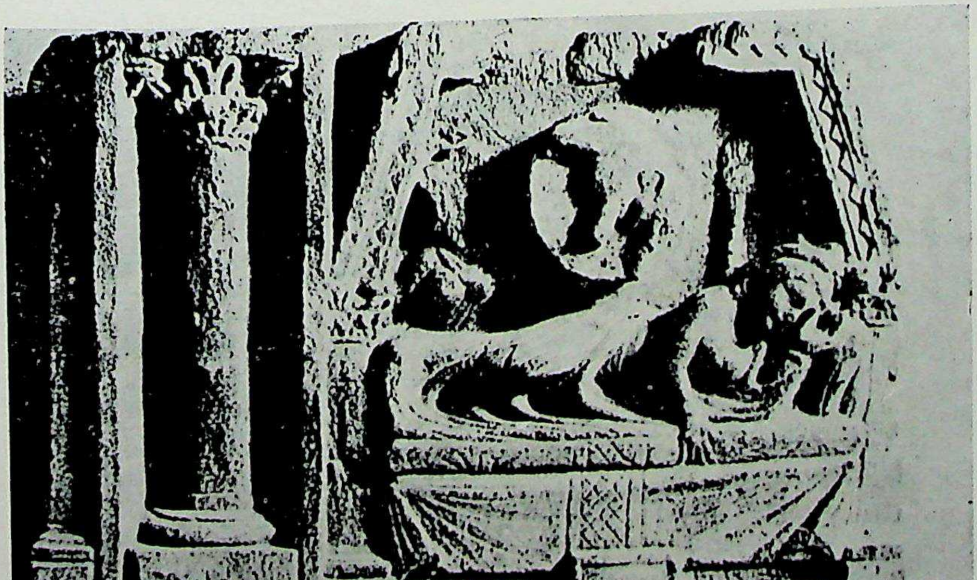
32. Kauśāmbi—Chariot drawn by four horses



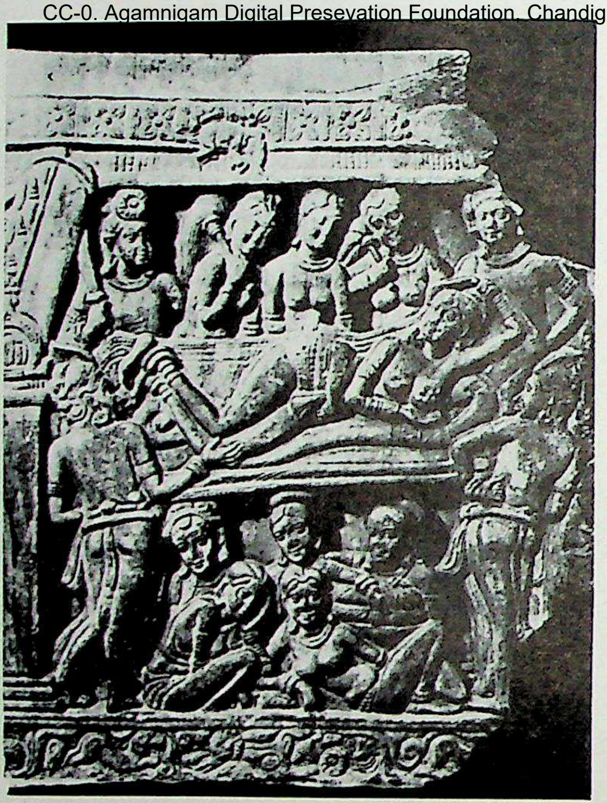
33. Pāṭaliputra—Chariot drawn by four horses



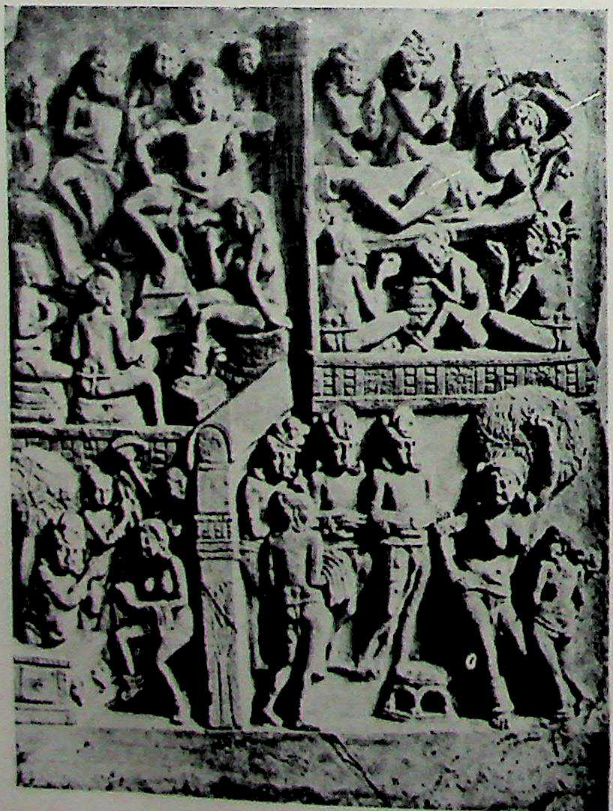
34. Barhut—Māyā's dream



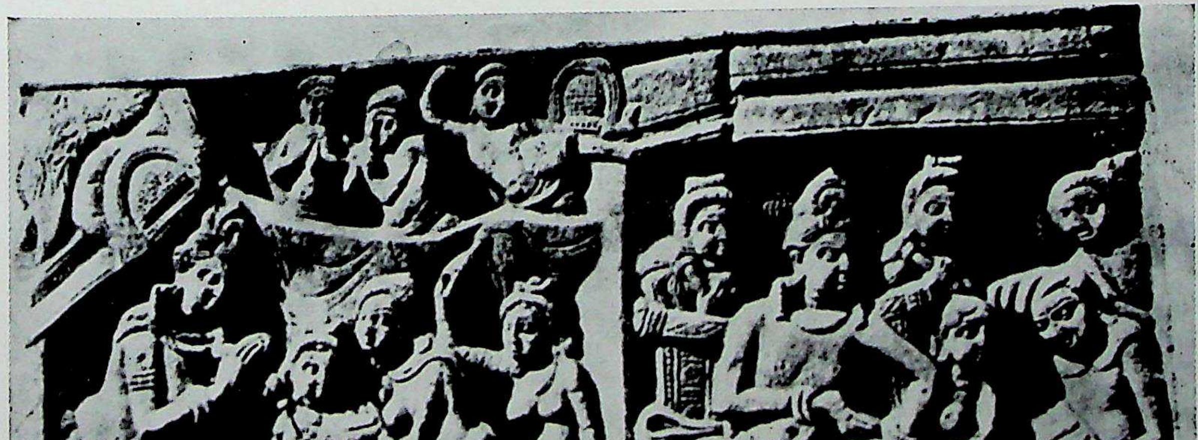
35. Lahore Museum—Māyā's dream



36. Amarāvati—Māyā's dream



37. Amarāvati—Episodes of Buddha's birth



38. Amarāvati—Episodes of Buddha's birth

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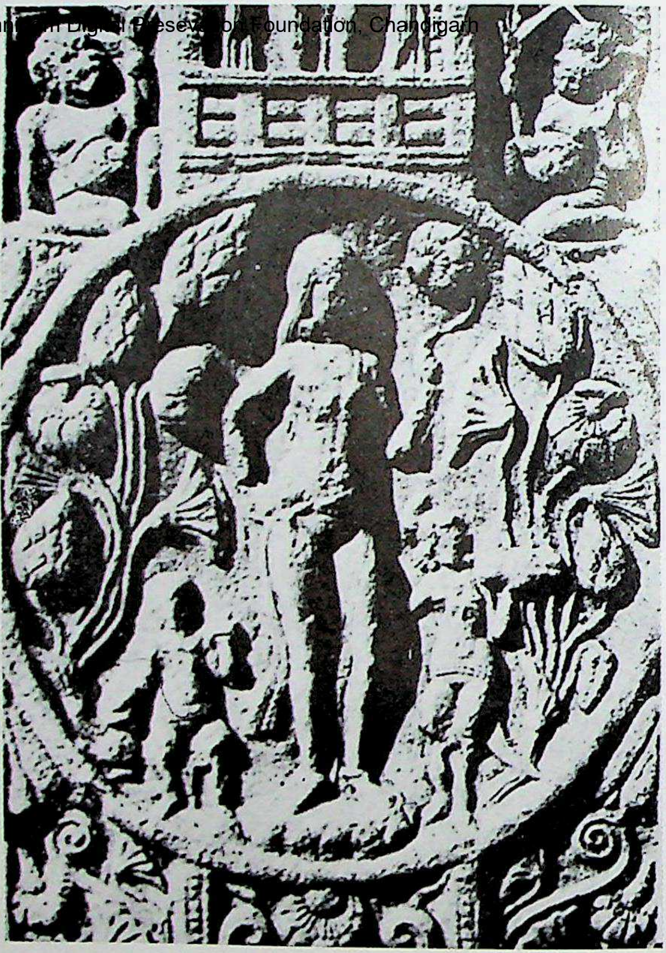
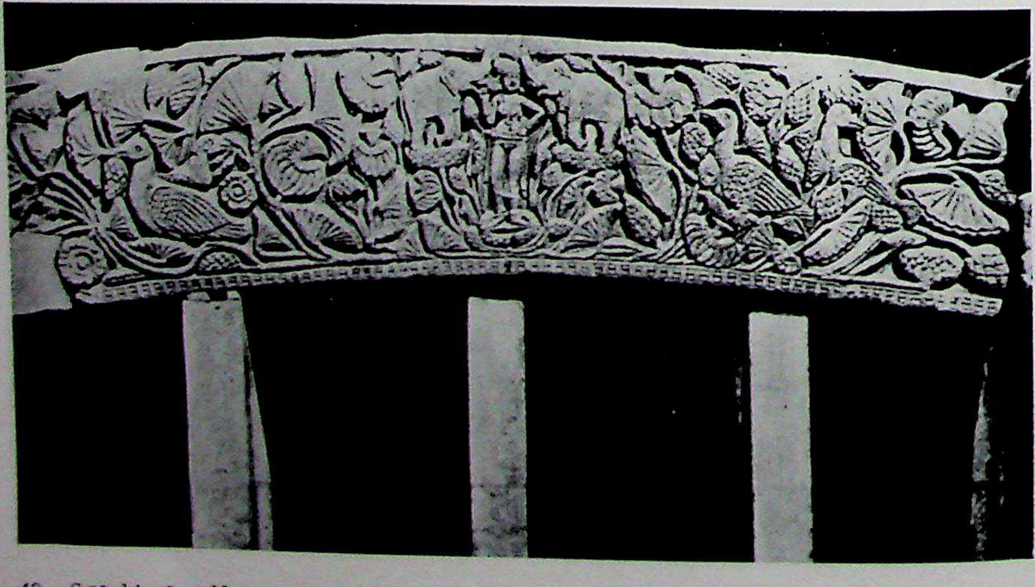
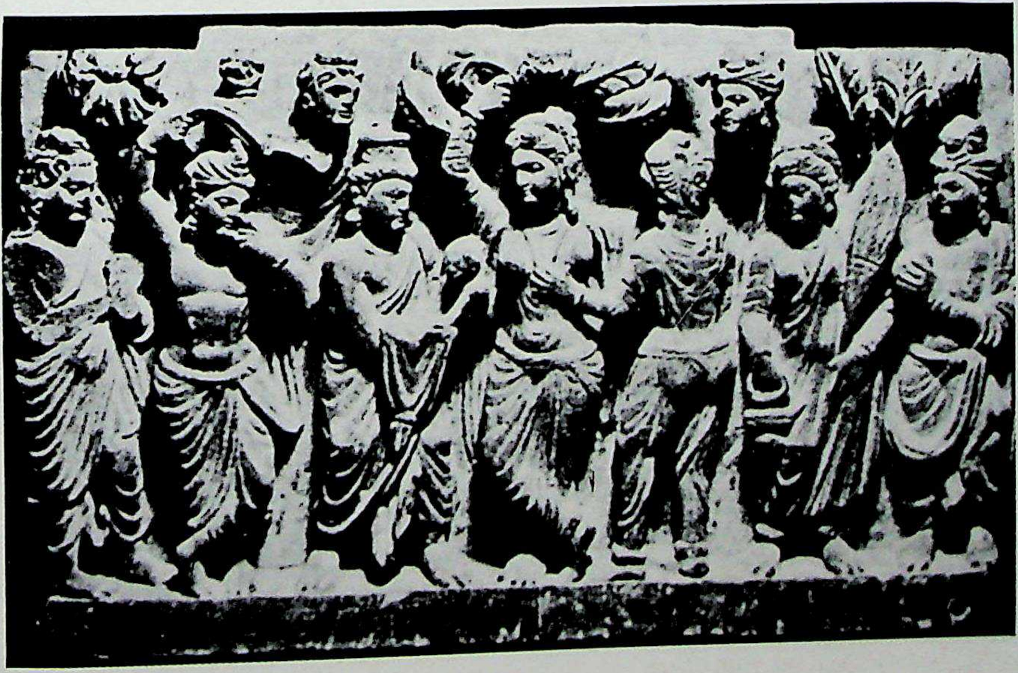


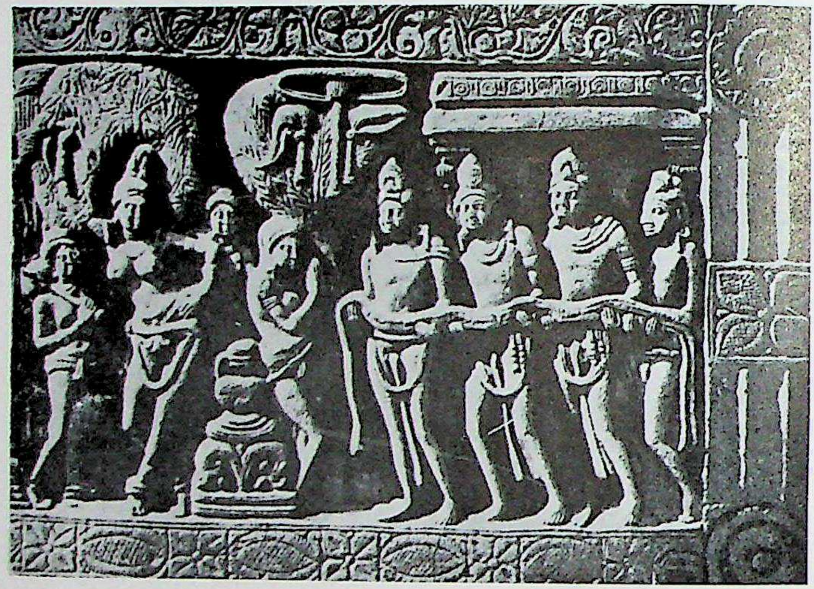
39. Sāñchi stūpa No. II—Māyādēvī



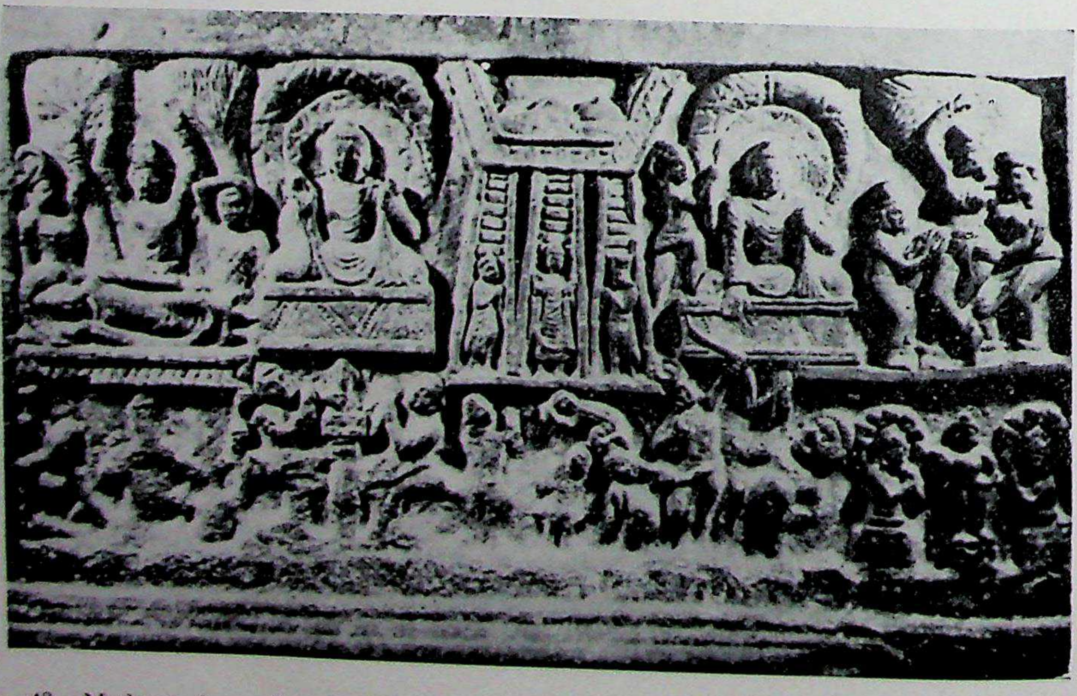
40. Sāñchi stūpa No. I, South gate, Lintel, Lakshmī



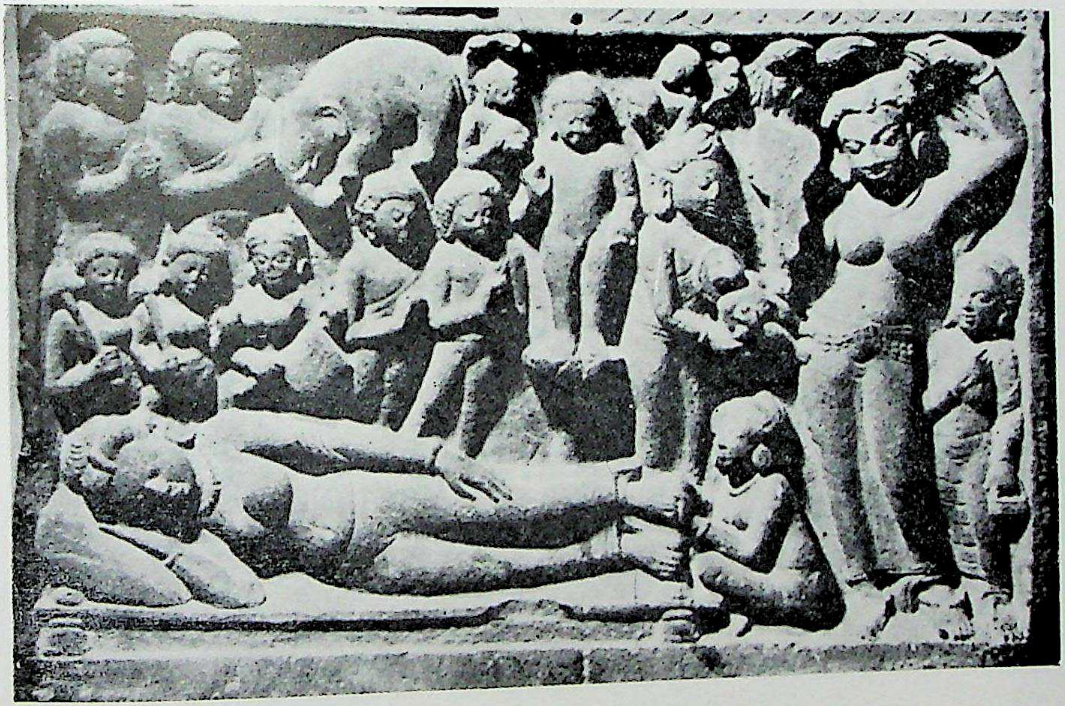
41. Gandhāra—Birth of Buddha



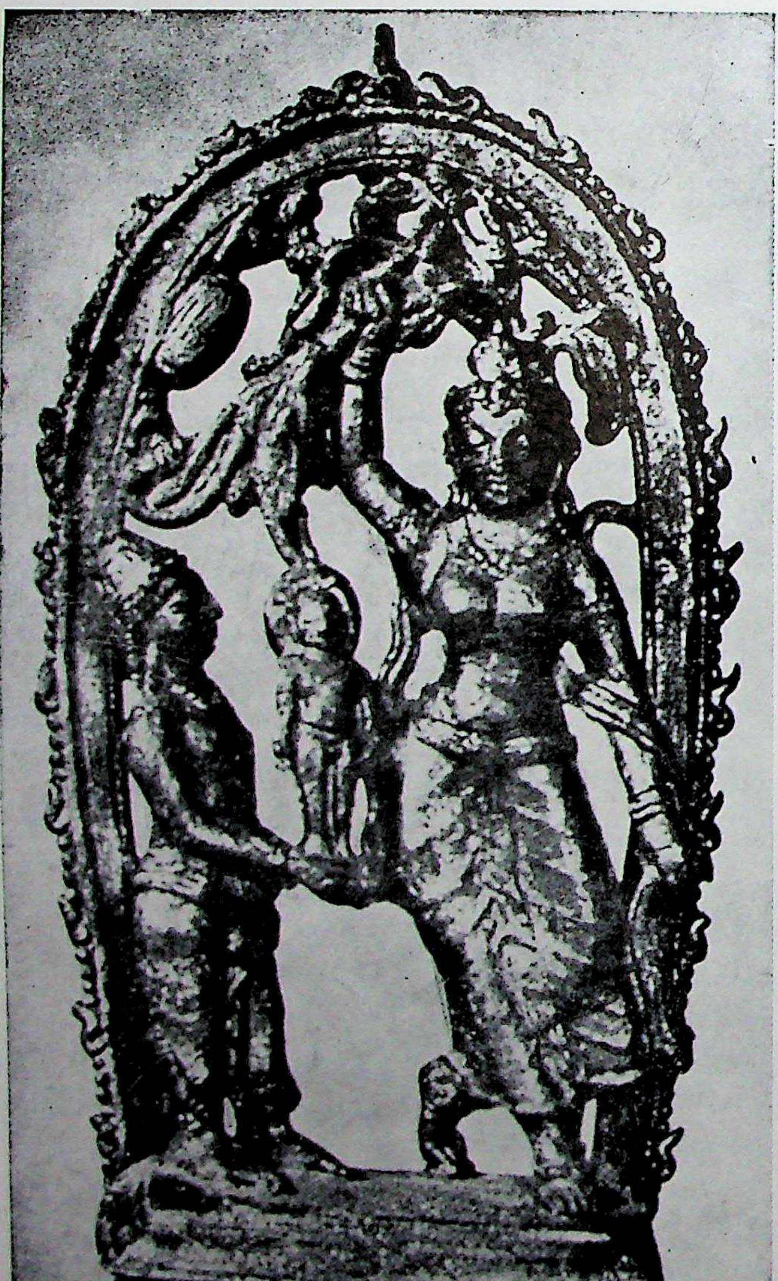
42. Nāgārjuna Koṇḍa—Birth of Buddha



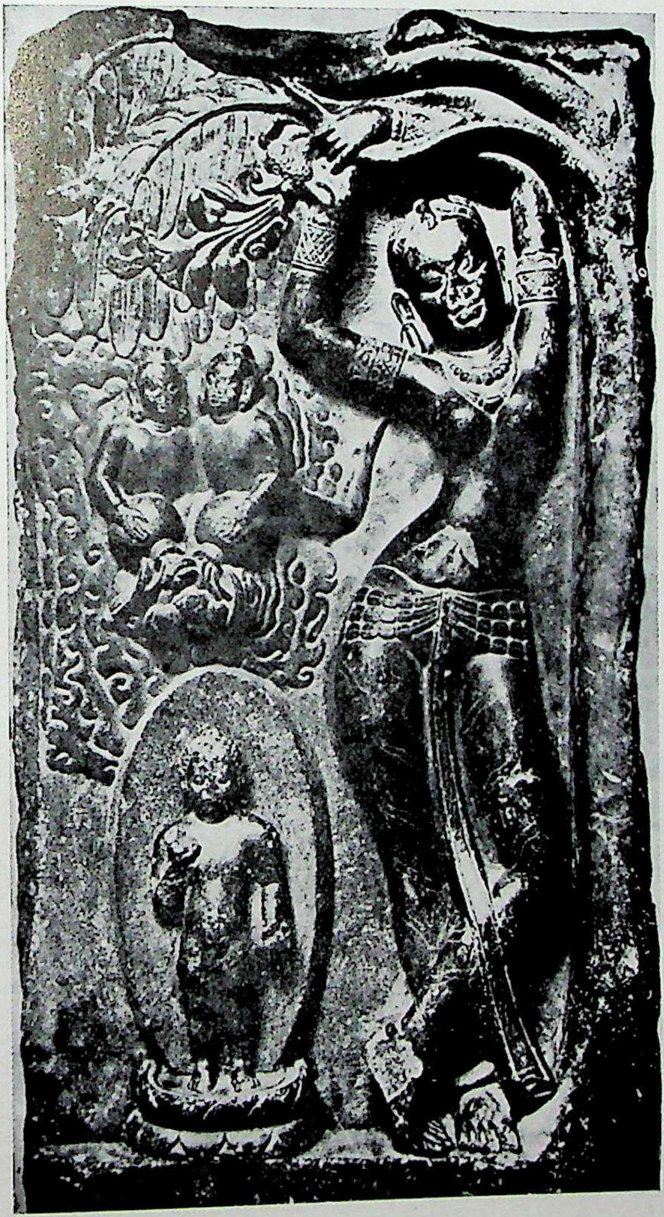
43. Mathurā—Scenes from Buddha's life



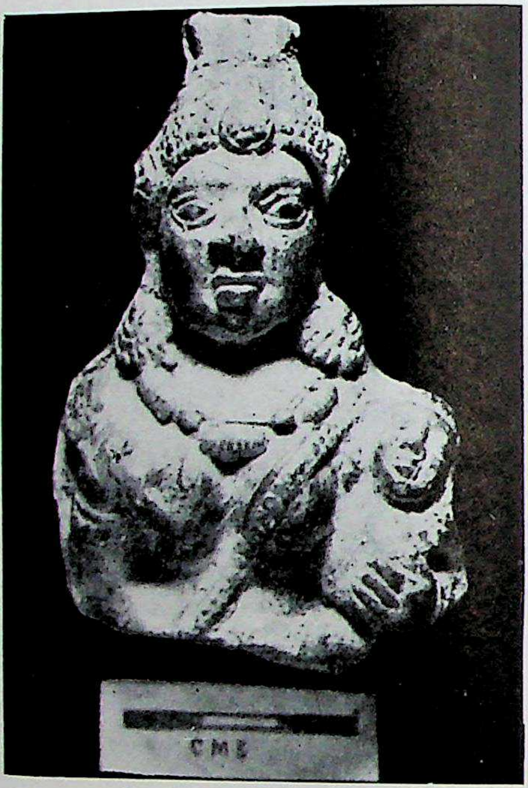
44. Sarnath—Birth of Buddha



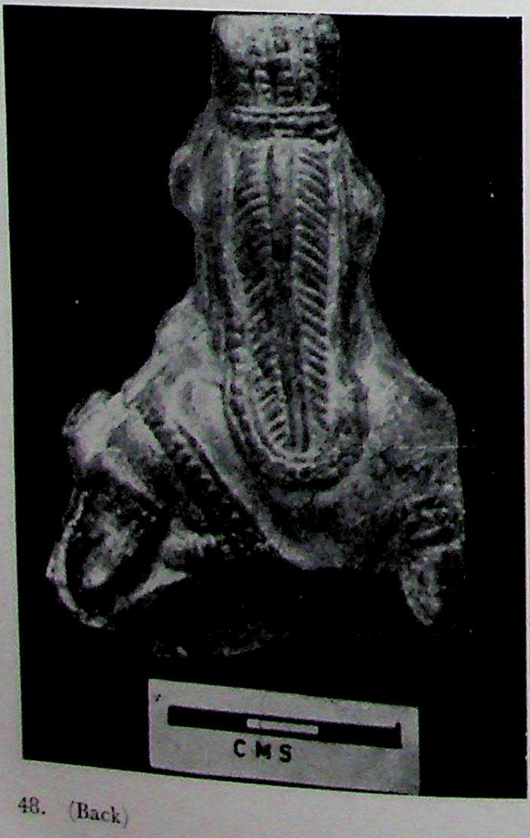
45. Nālandā—Birth of Buddha



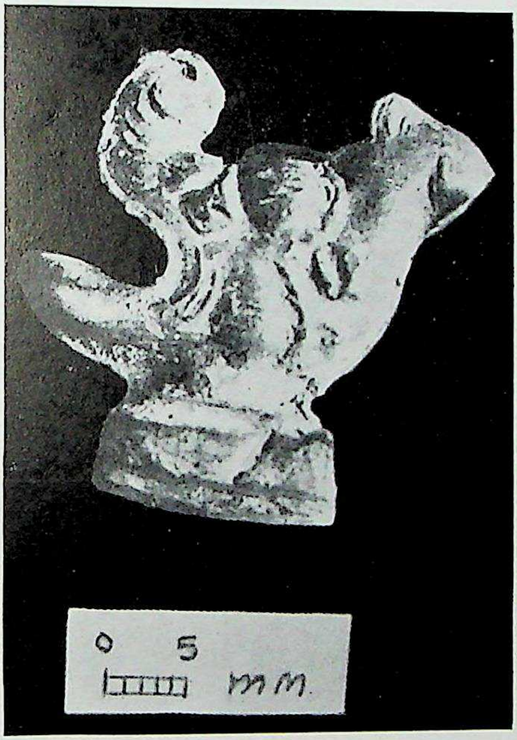
46. Nepal—Birth of Buddha



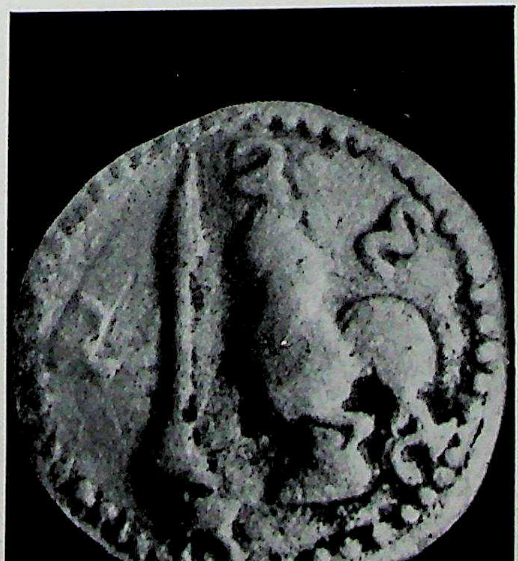
47. Paiṭhan—Sātavāhan Terracotta (Front)



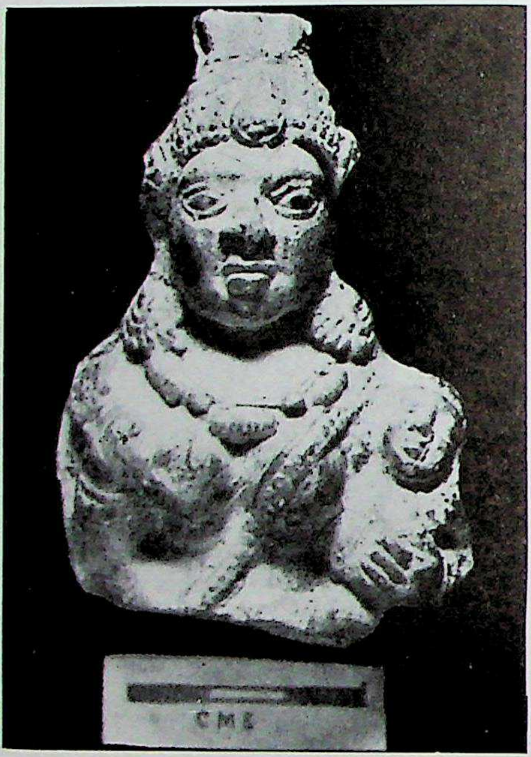
48. (Back)



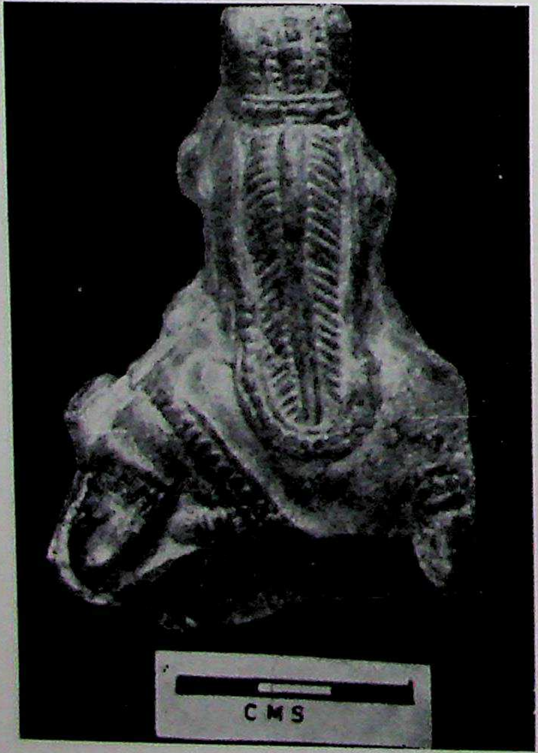
49. Paiṭhan—Sātavāhana Terracotta of crocodile



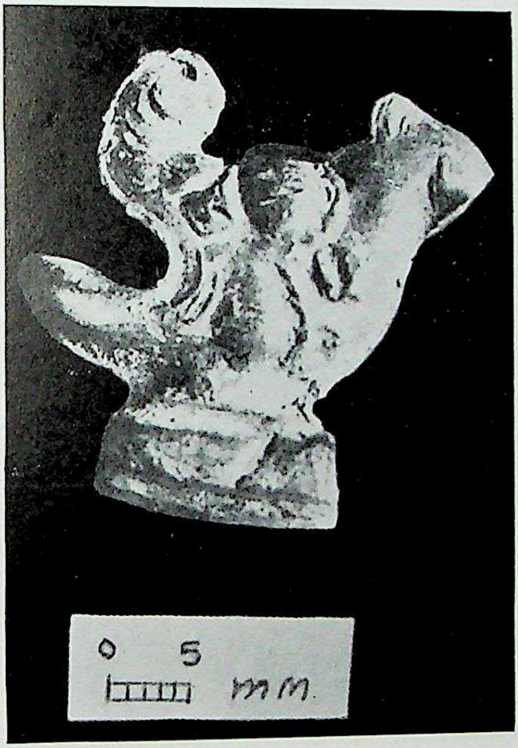
50. Paiṭhan—Sātavāhana Terracotta—*Aśvamedha* seal



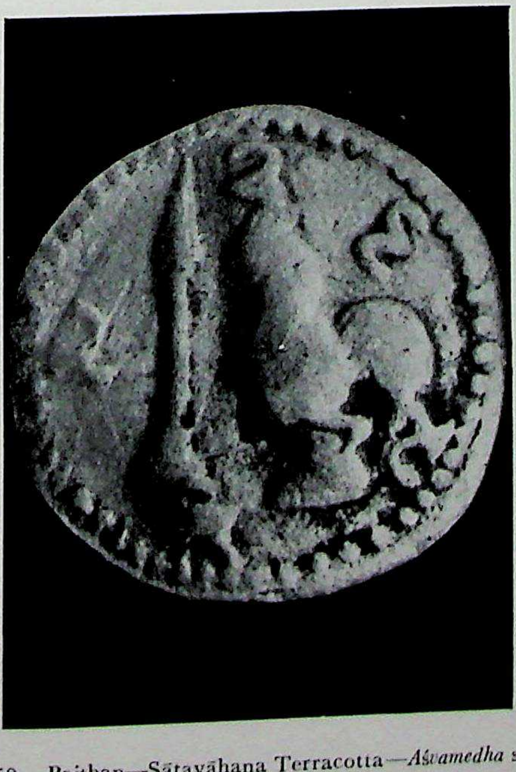
47. Paiṭhan—Sātavāhan Terracotta (Front)



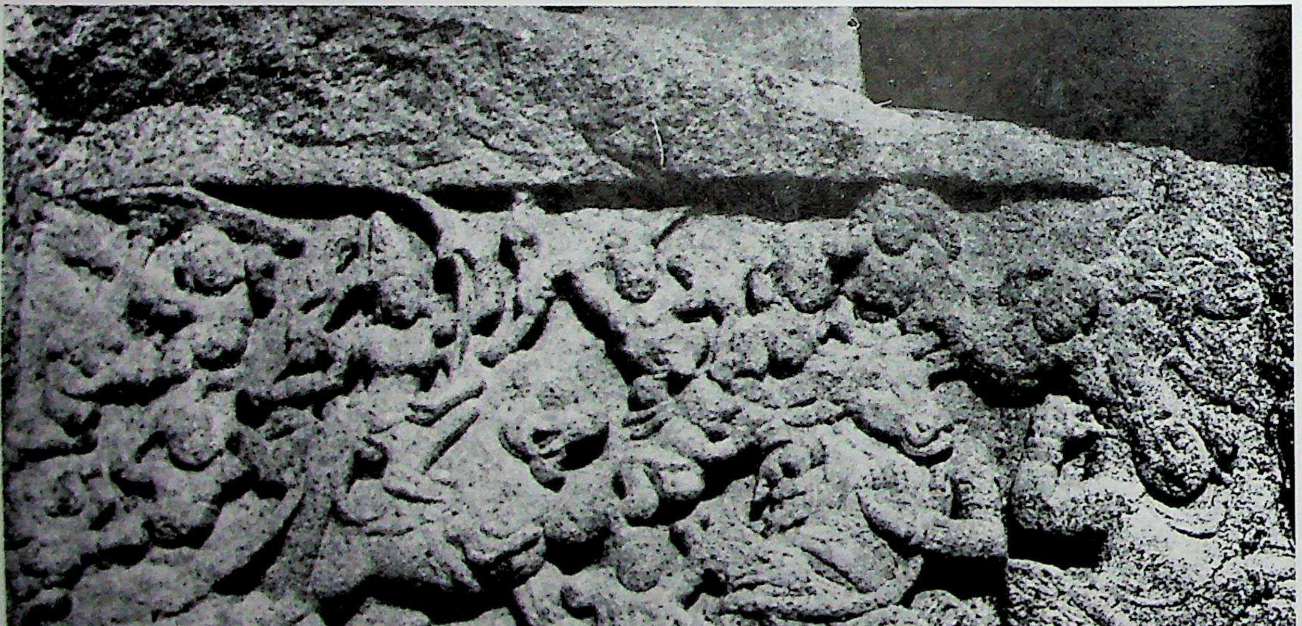
48. (Back)



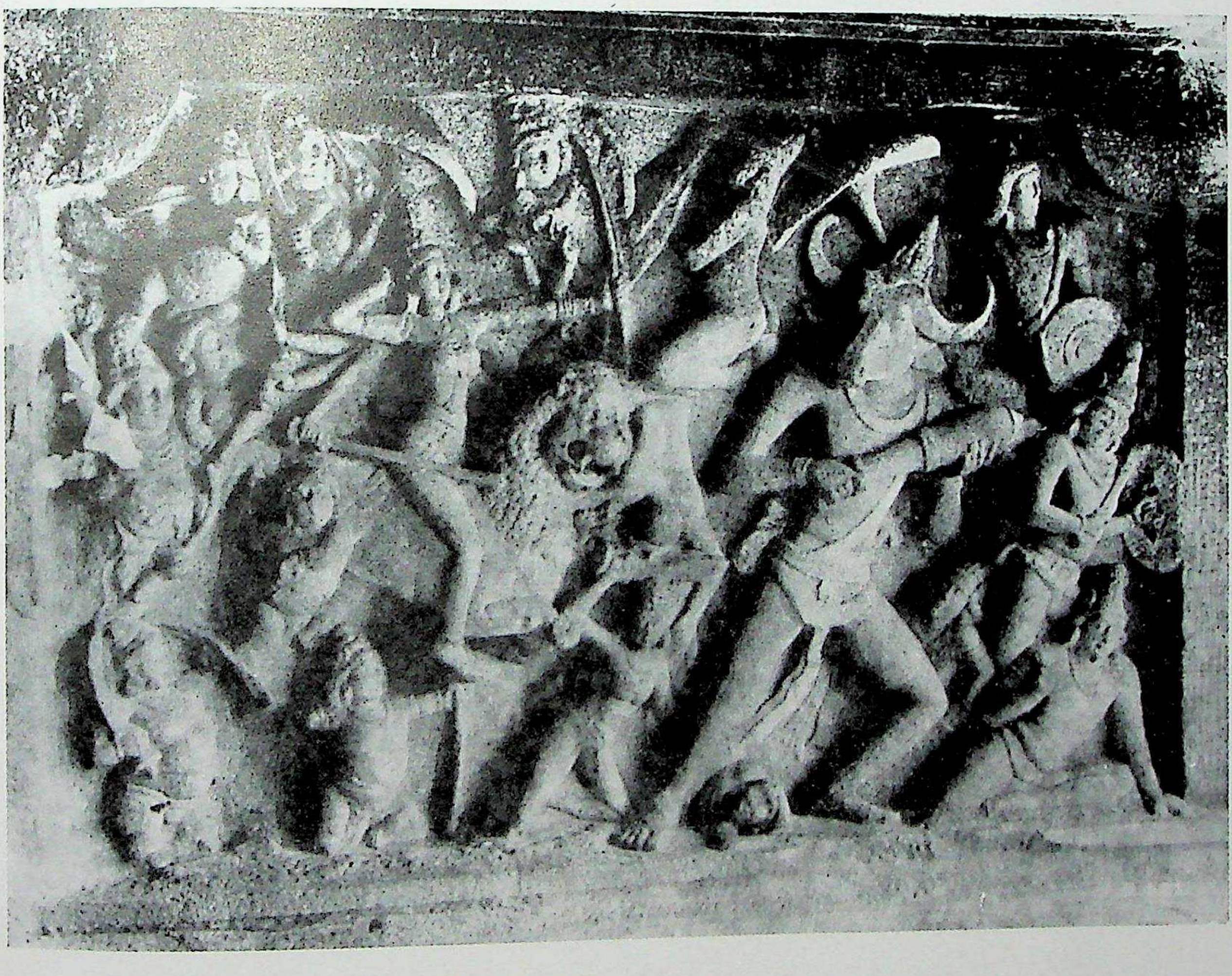
49. Paiṭhan—Sātavāhana Terracotta of crocodile



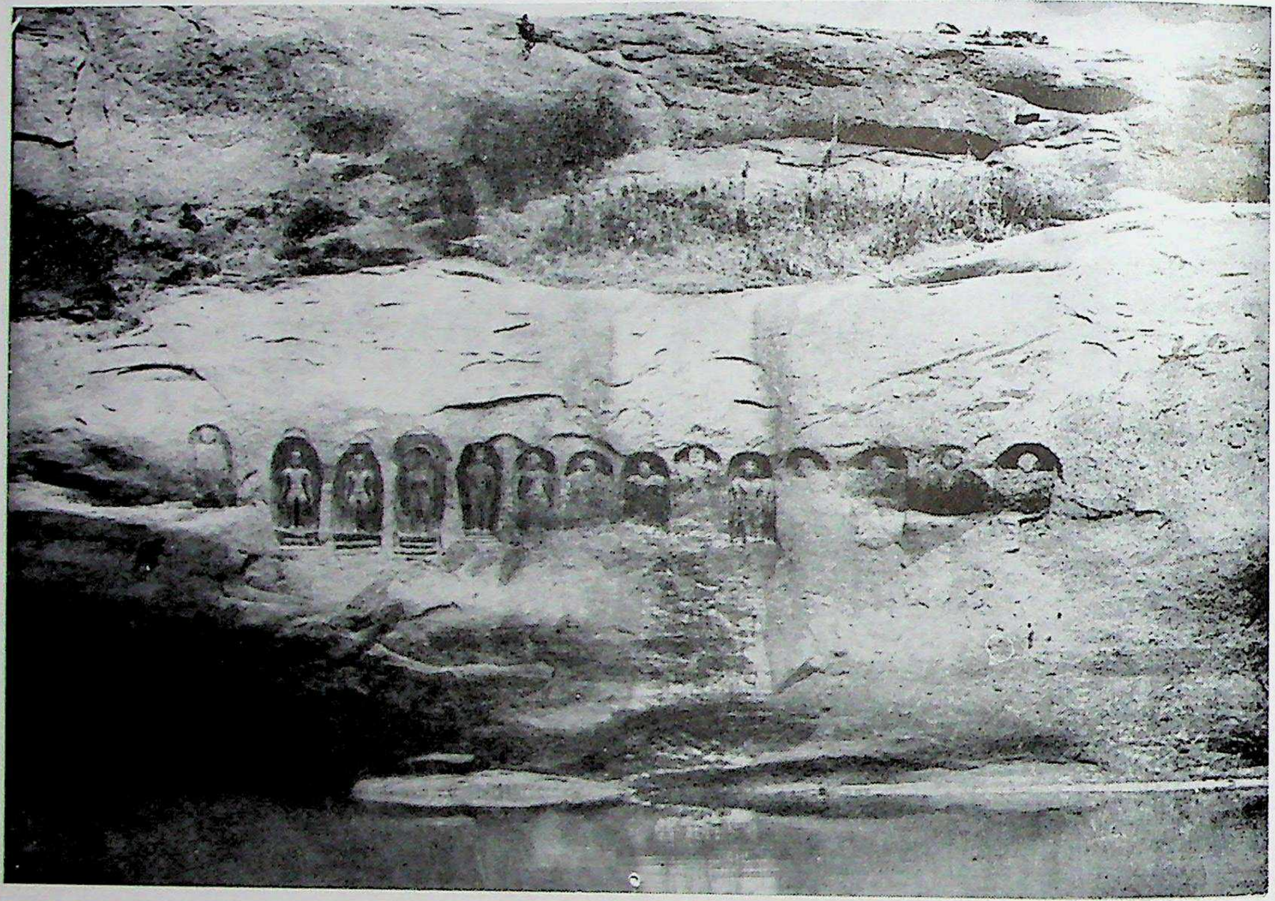
50. Paiṭhan—Sātavāhana Terracotta—*Aśvamedha* seal



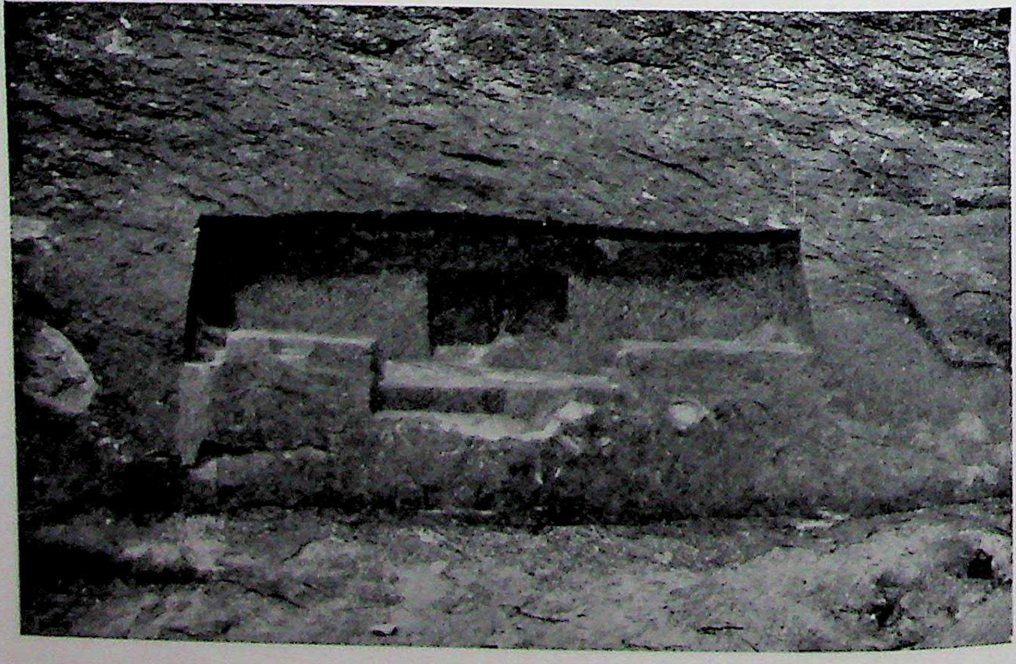
51. Śālvankuppam—Mahishāsuramardini panel



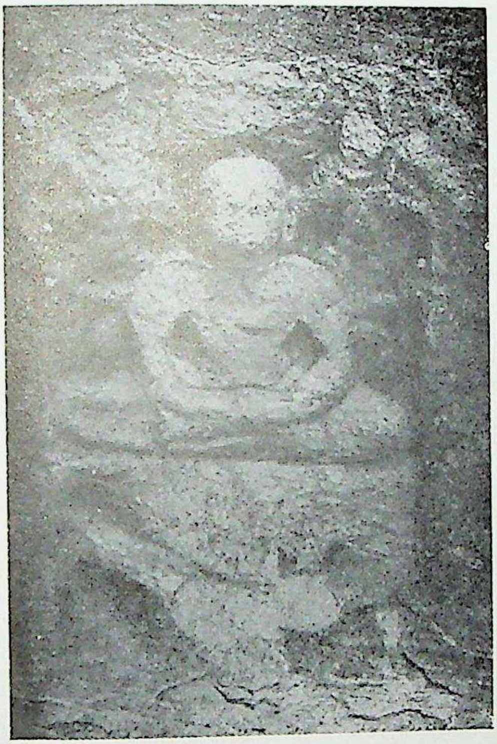
52. Māmallapuram—Mahishāsuramardini panel



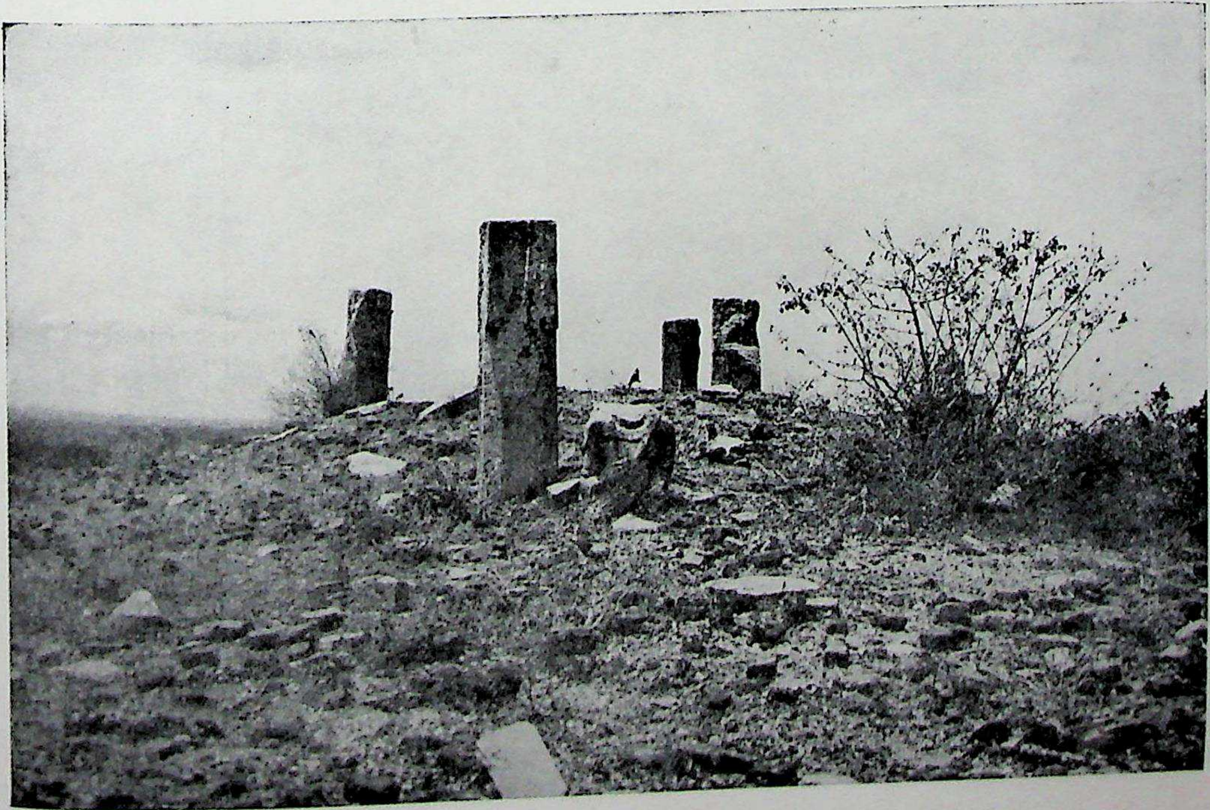
53. Tippūru—Jaina Tīrthankaras



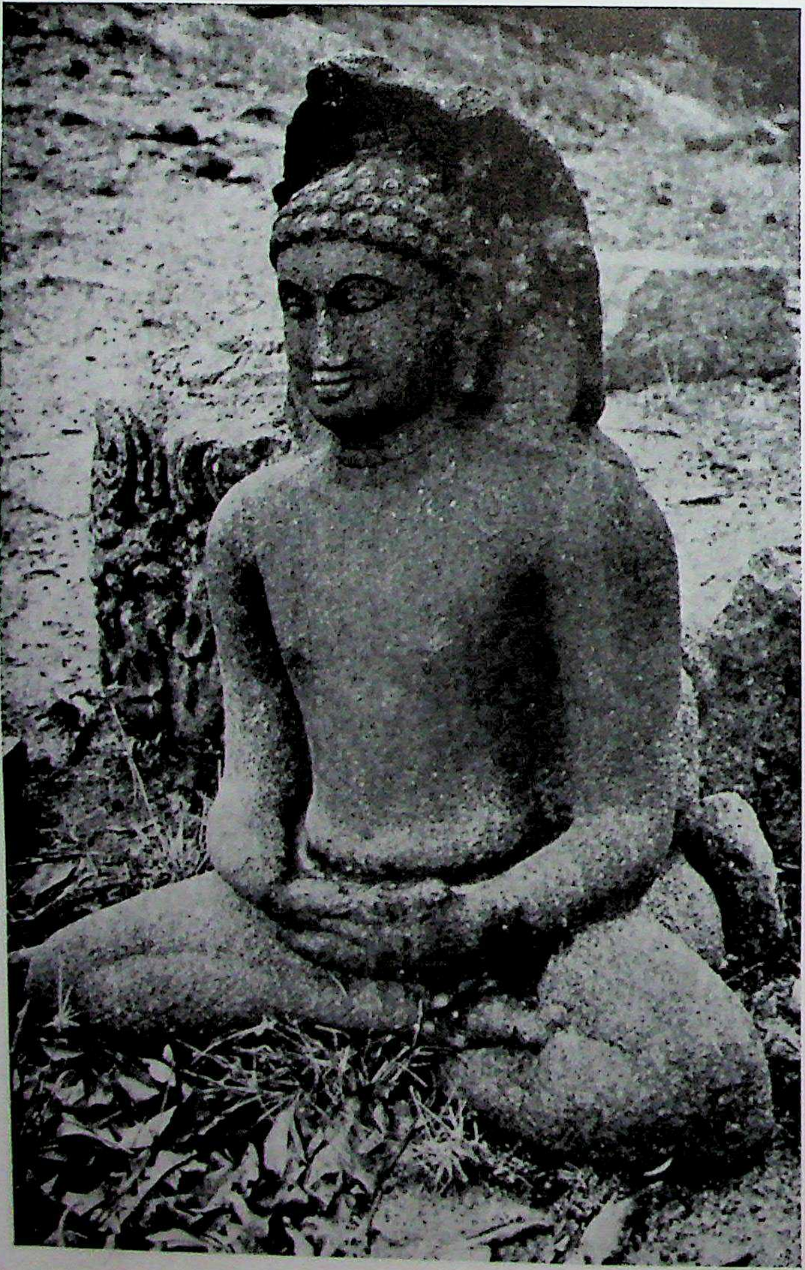
54. Tippūru—Rock-cut niche



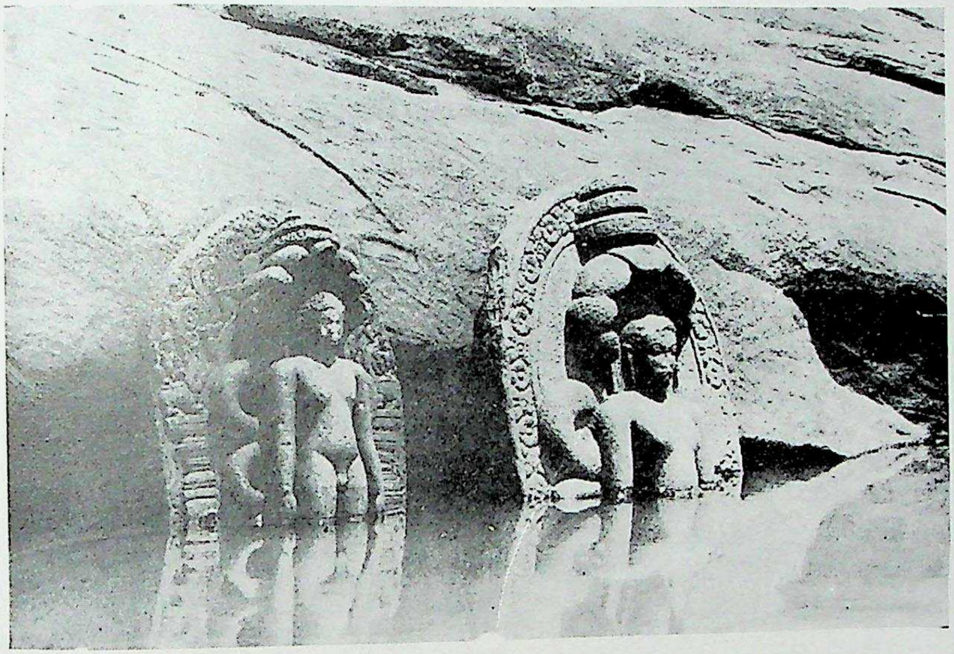
55. Tippūru—Seated Ādinātha



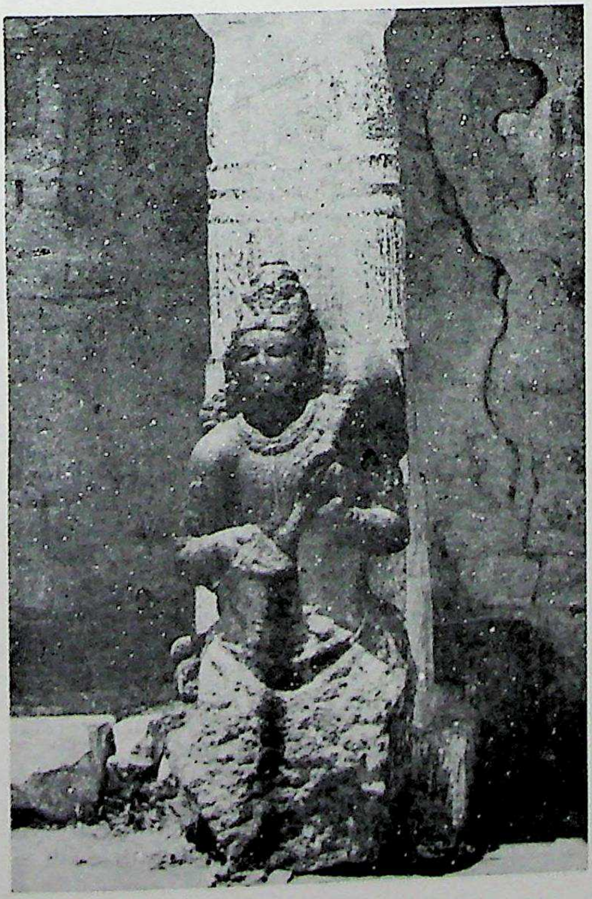
56. Tippūru—Brick *Viharas*



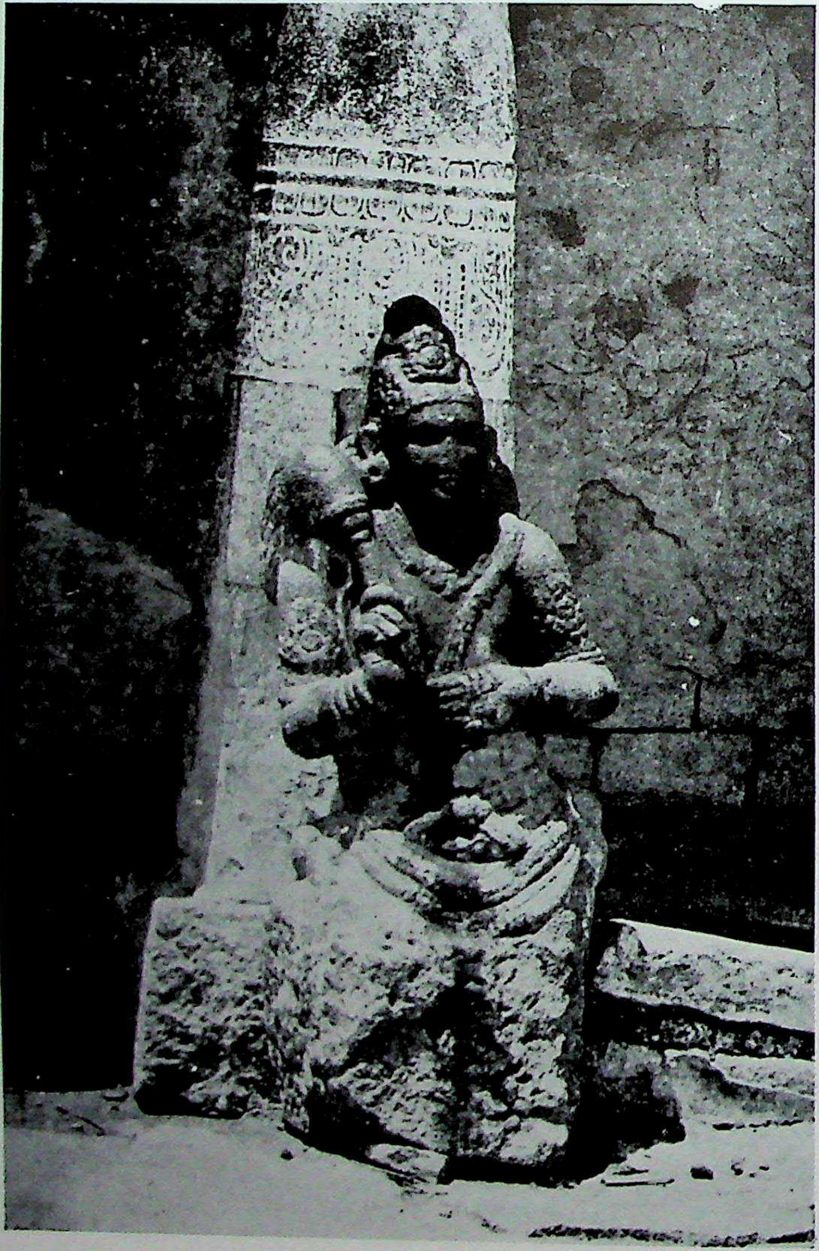
57. Tippūru—Supārśvanātha



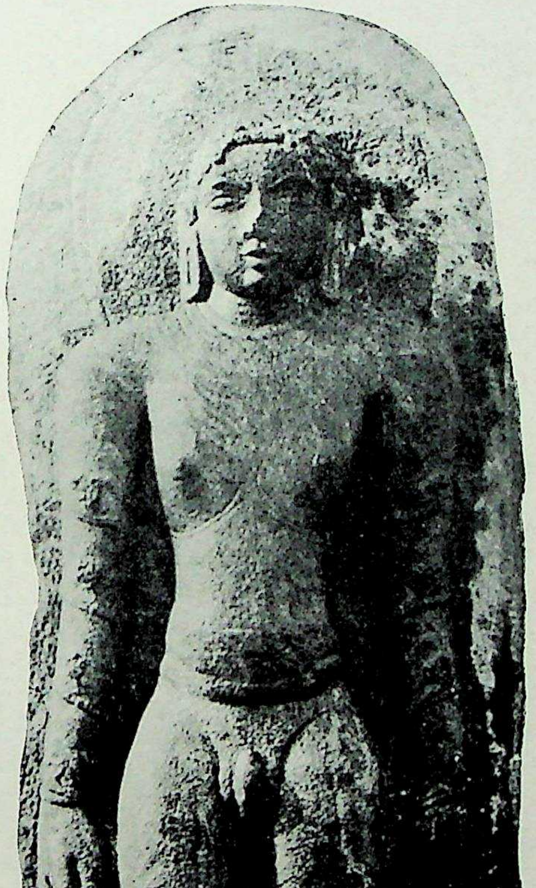
58. Tippūru—Standing pārśvanāthas



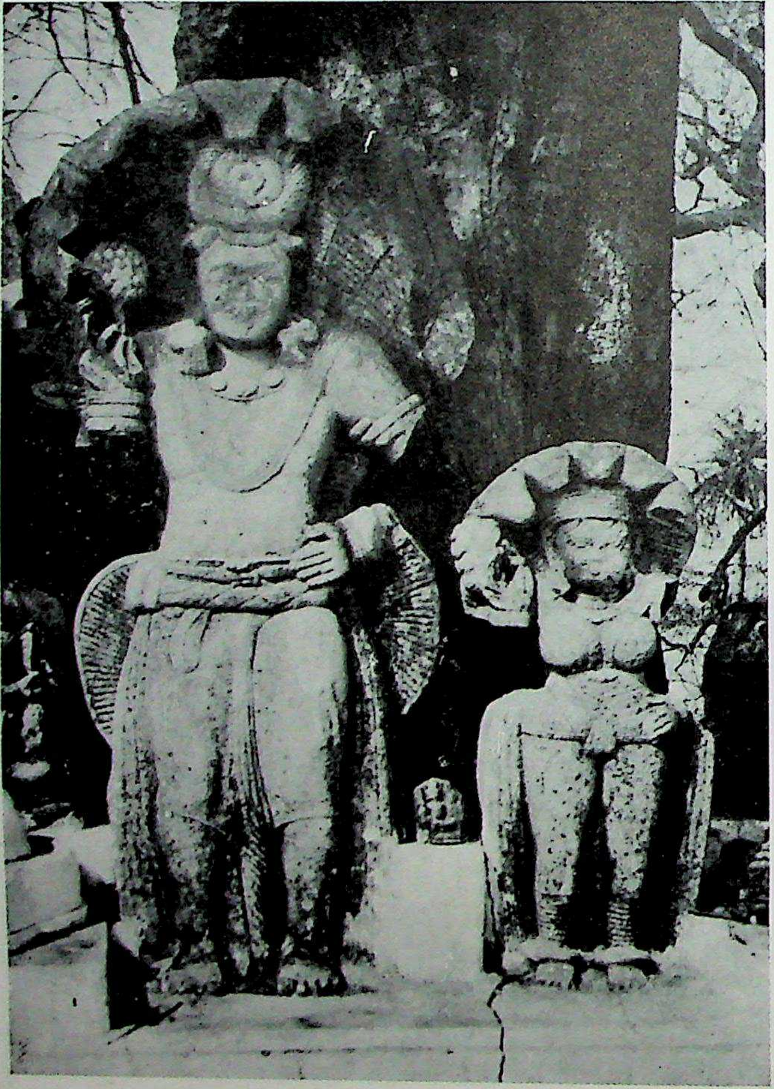
59. Kulgere—*Chauri*—Bearer



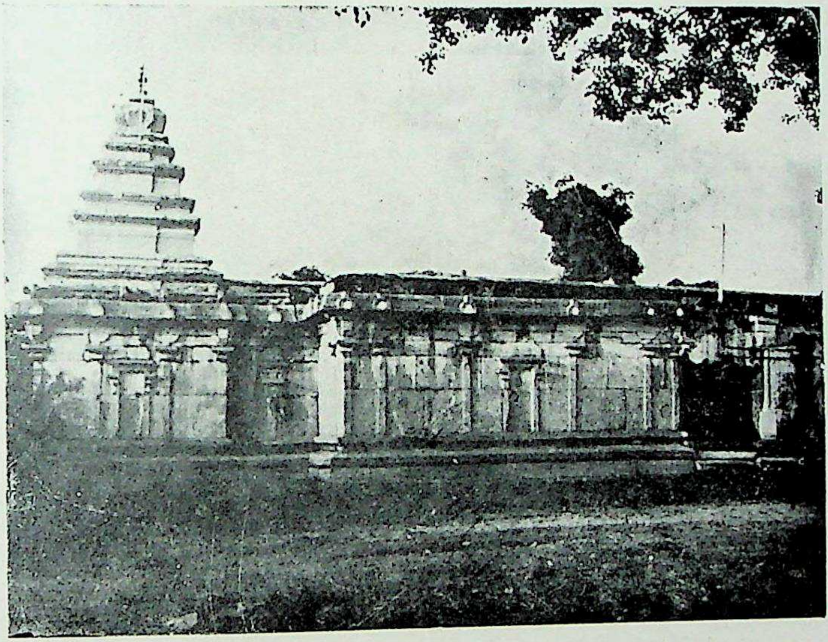
60. Kulgere— *Chauri*—Bearer



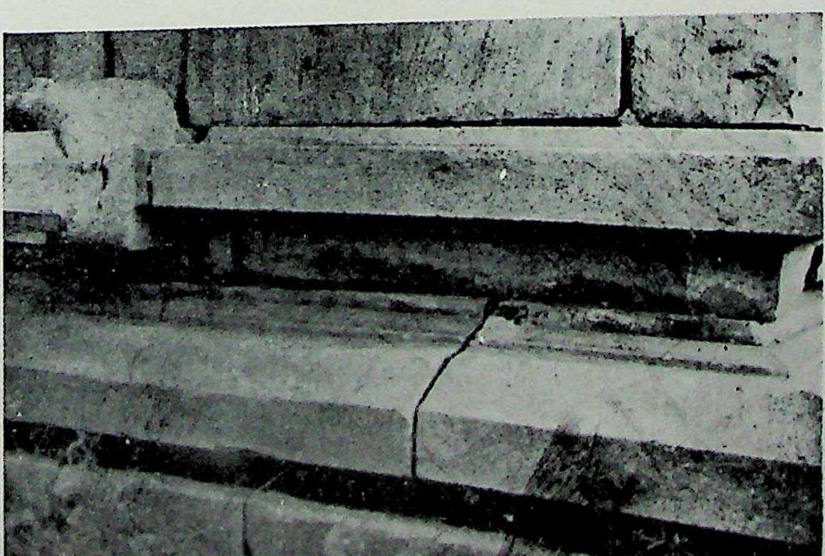
61. Tippūru—Gomaṭēśvara, Savanappana beṭṭa



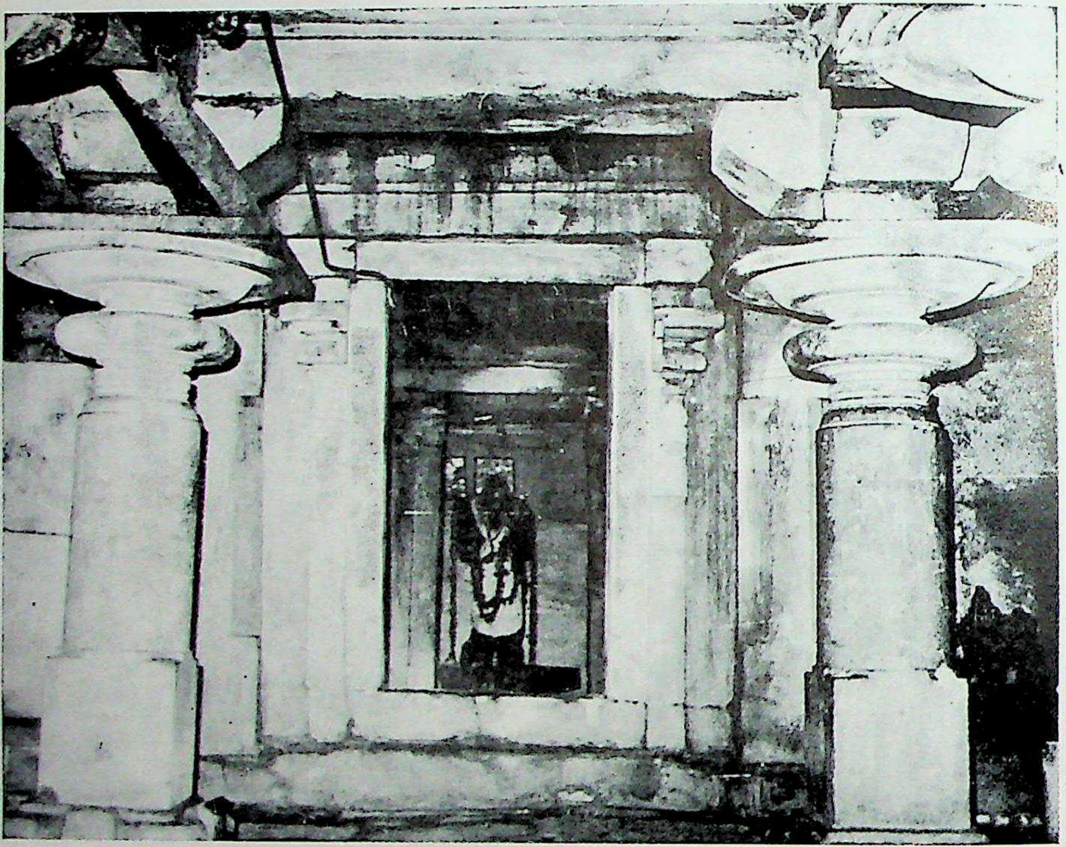
62. Gulgaon—Nāga and Nāgini



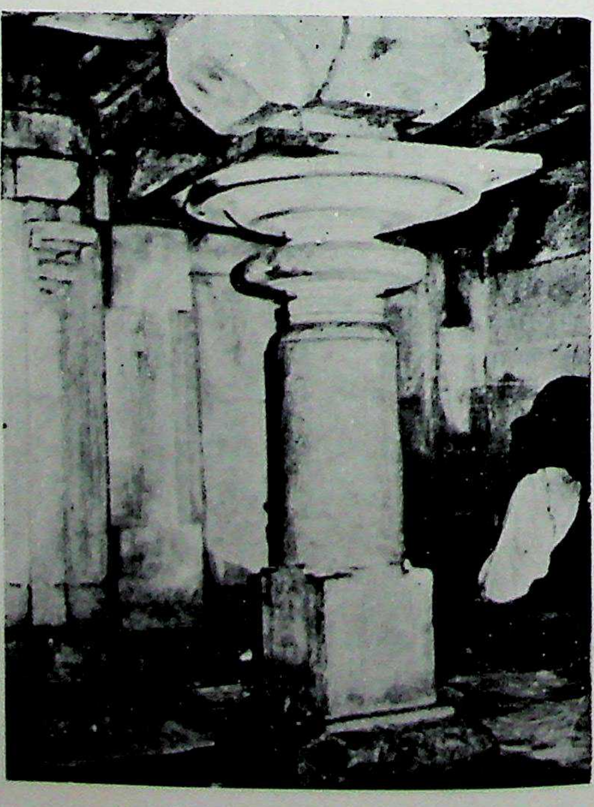
63. Muḍigoṇḍa—Lakhmīnārāyāṇa Temple



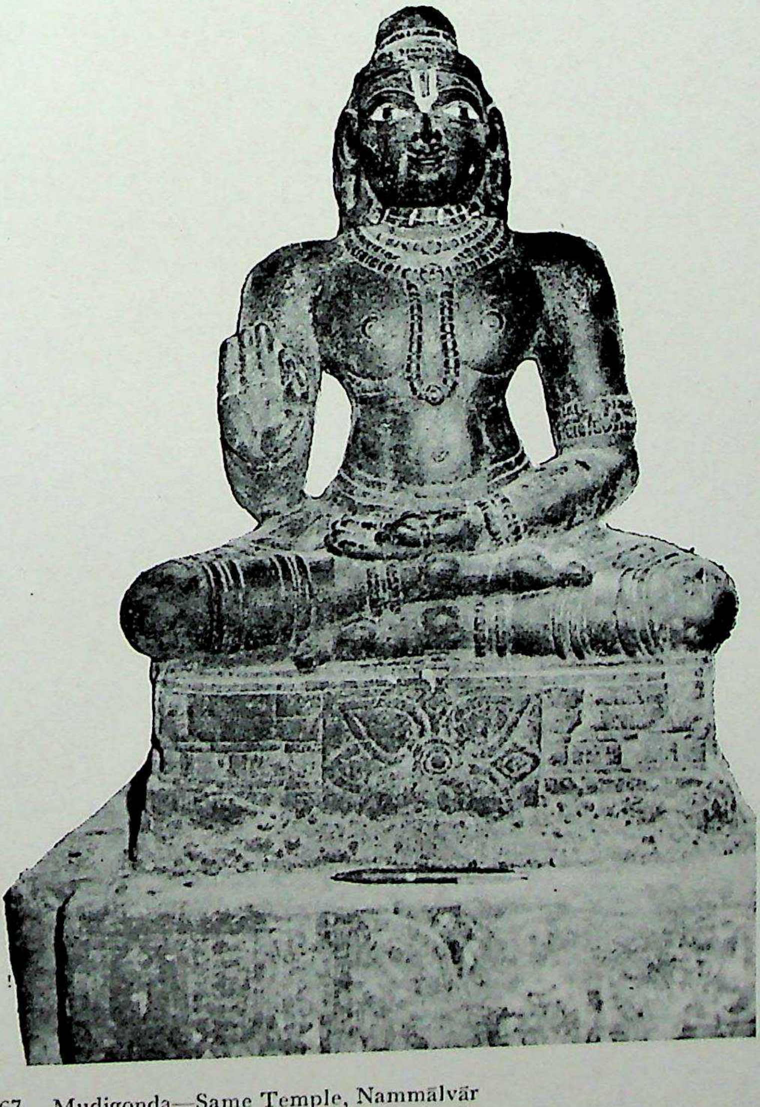
64. Muḍigoṇḍa—Plinth of the same Temple



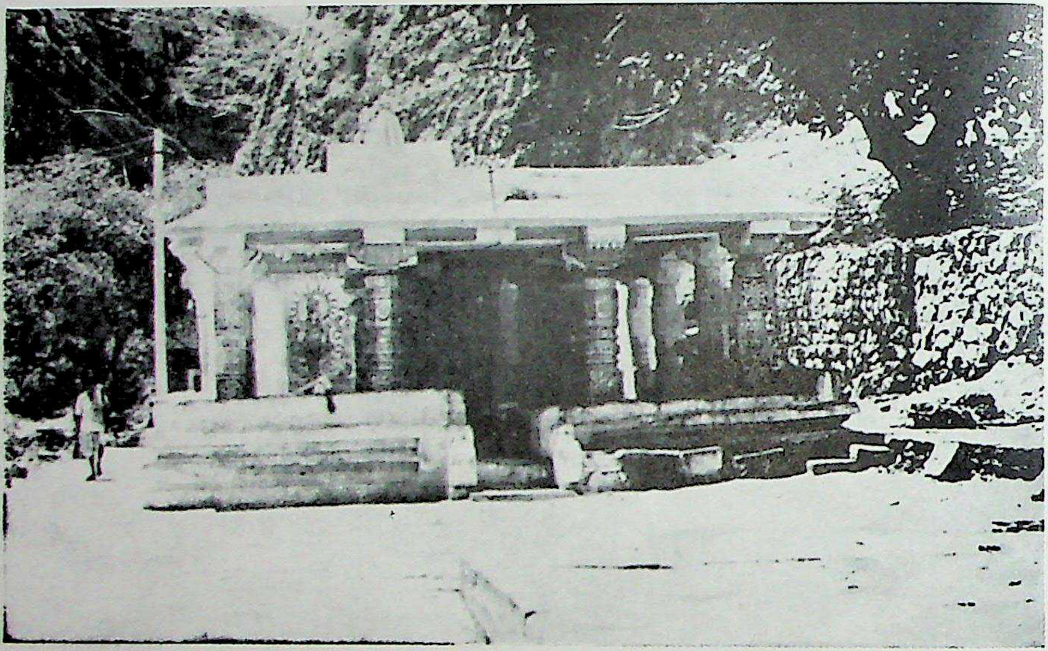
65. Muḍigoṇḍa—Same Temple, Navaranga



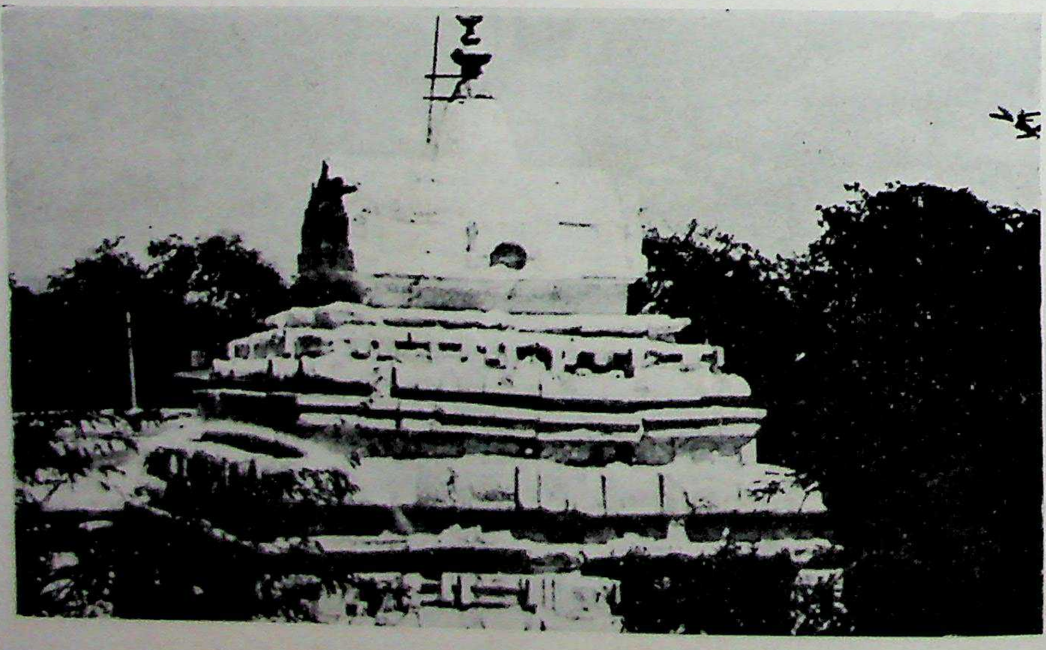
66. Muḍigoṇḍa—Same Temple, Navaranga Pillar



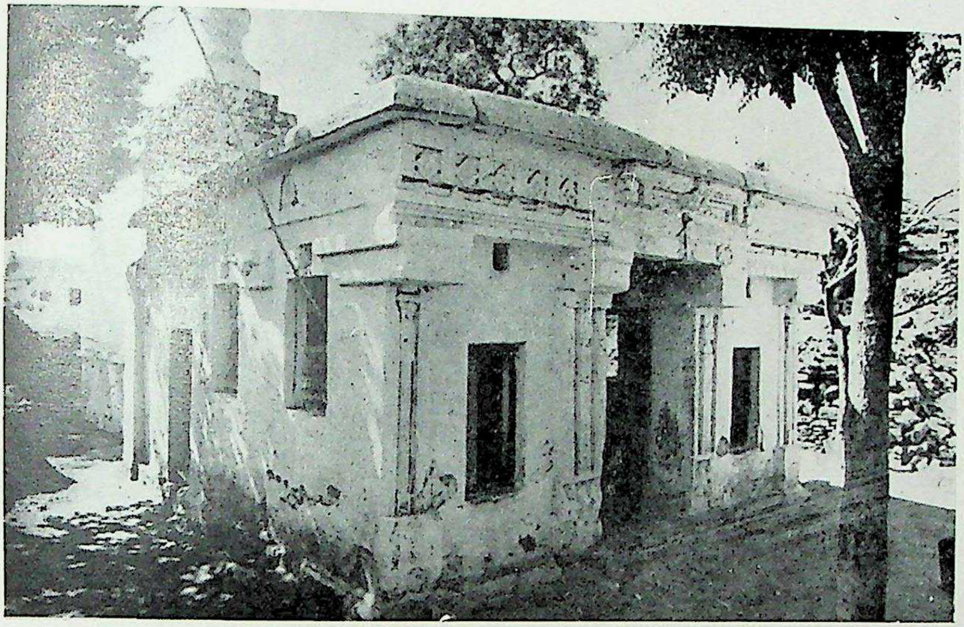
67. Muḍigoṇḍa—Same Temple, Nammālvār



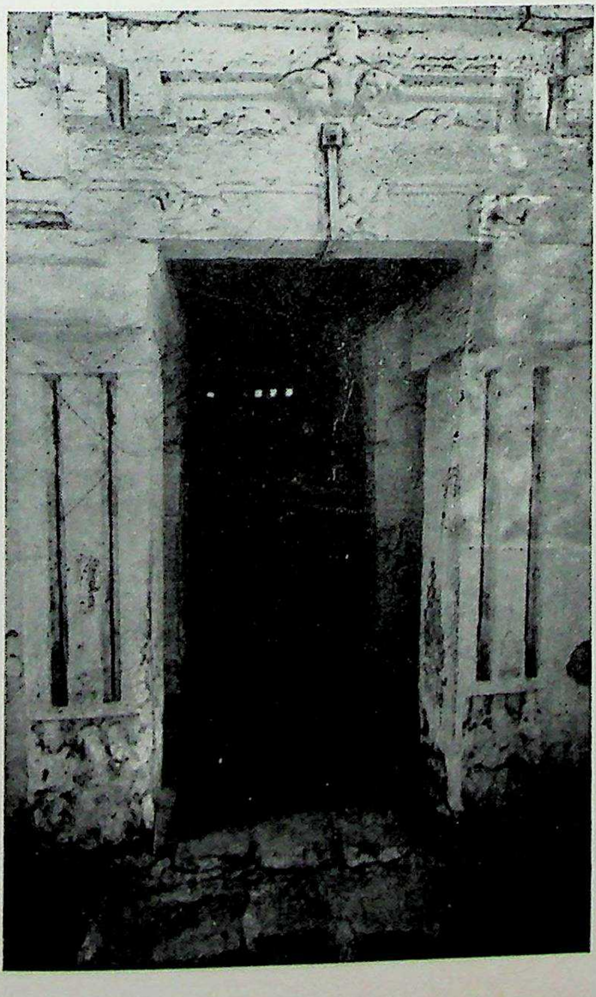
68. Sureban—Śabari Temple (Front view)



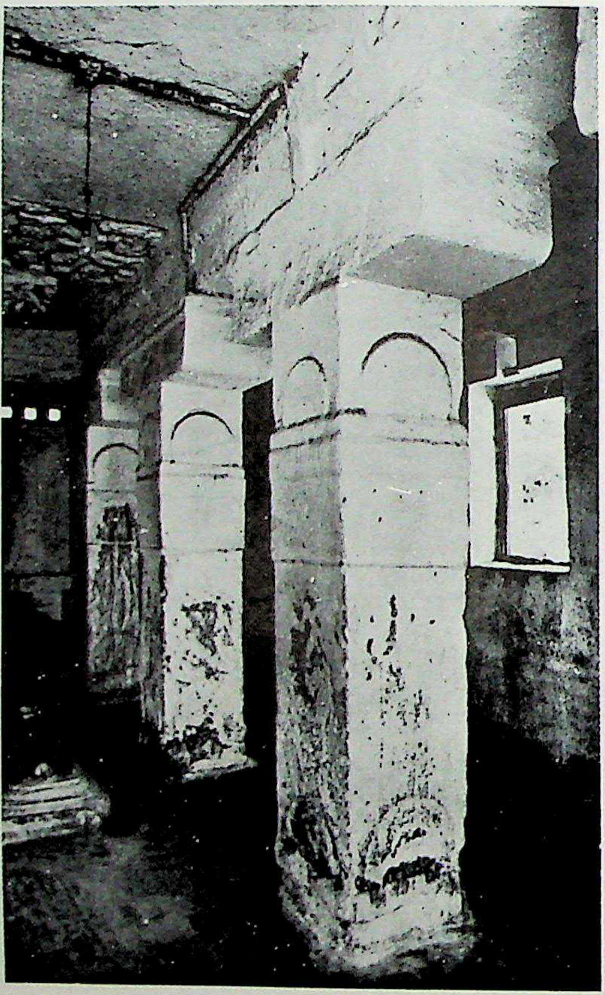
69. Sureban—Śālāśikhara of Śabari Temple



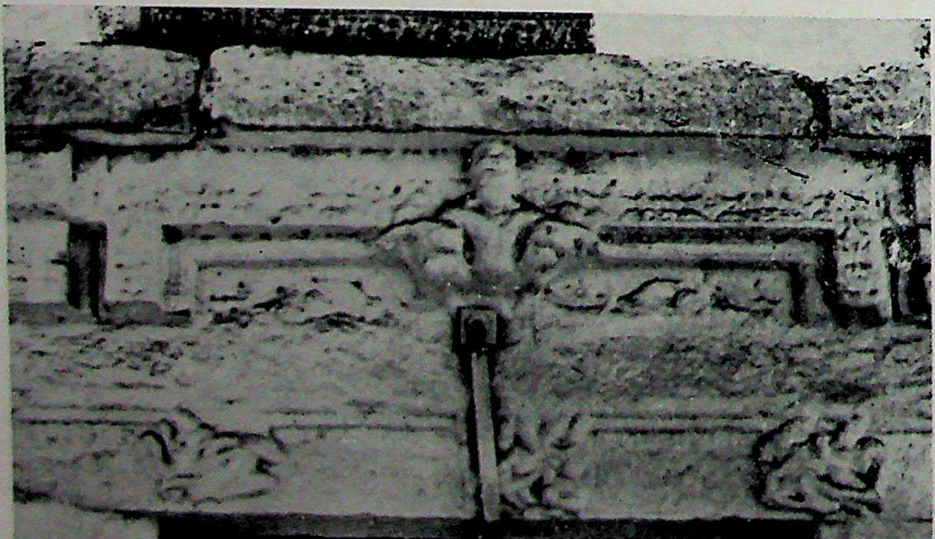
70. Hungund



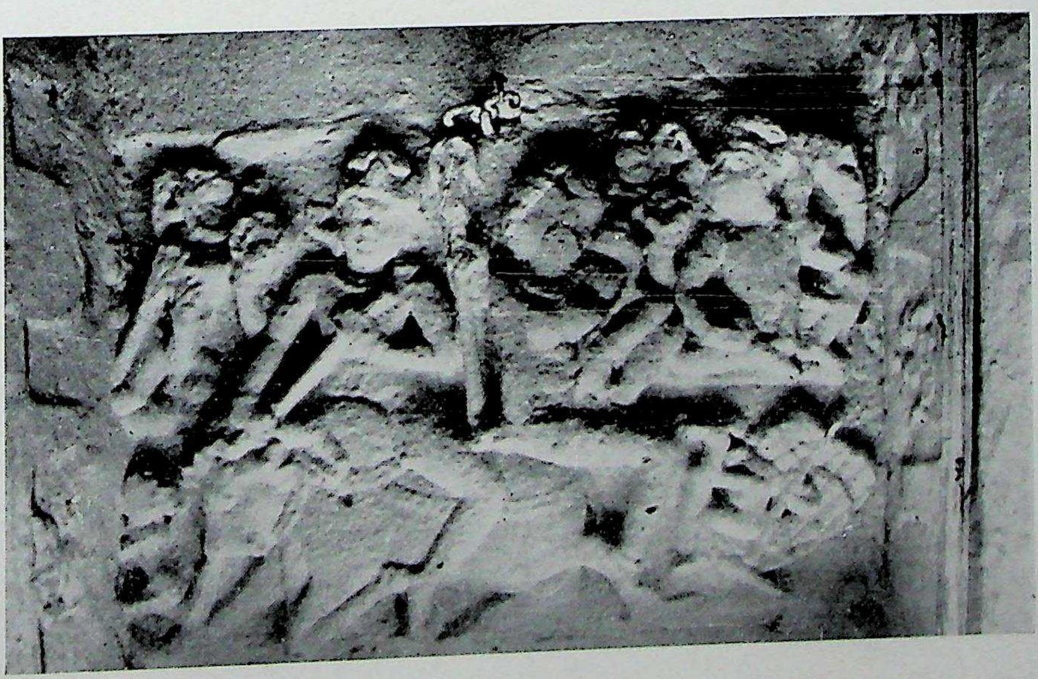
71. Hungund



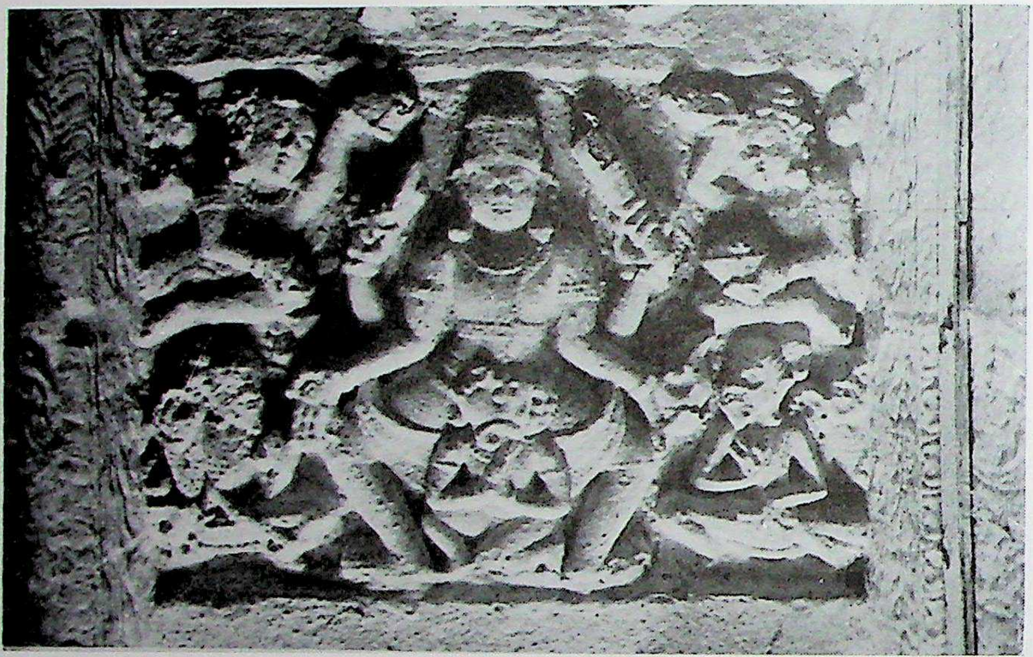
72. Hungund



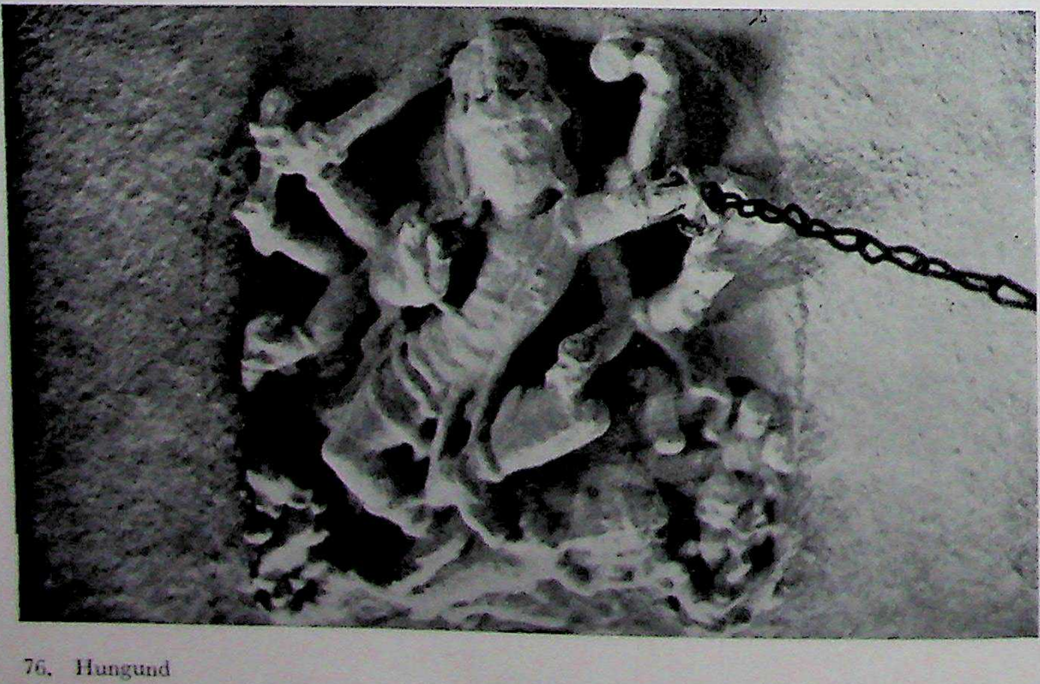
73. Hungund



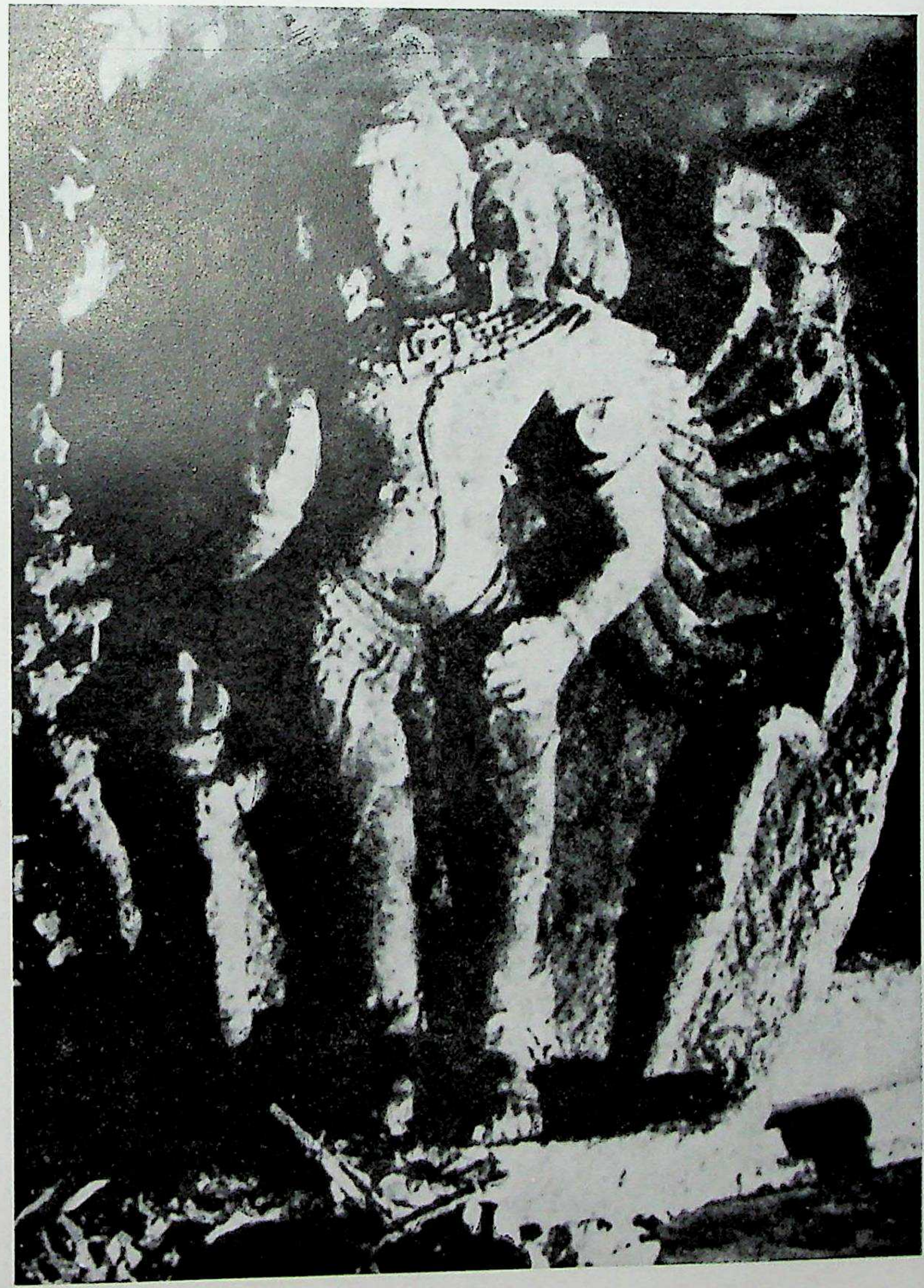
74. Hungund



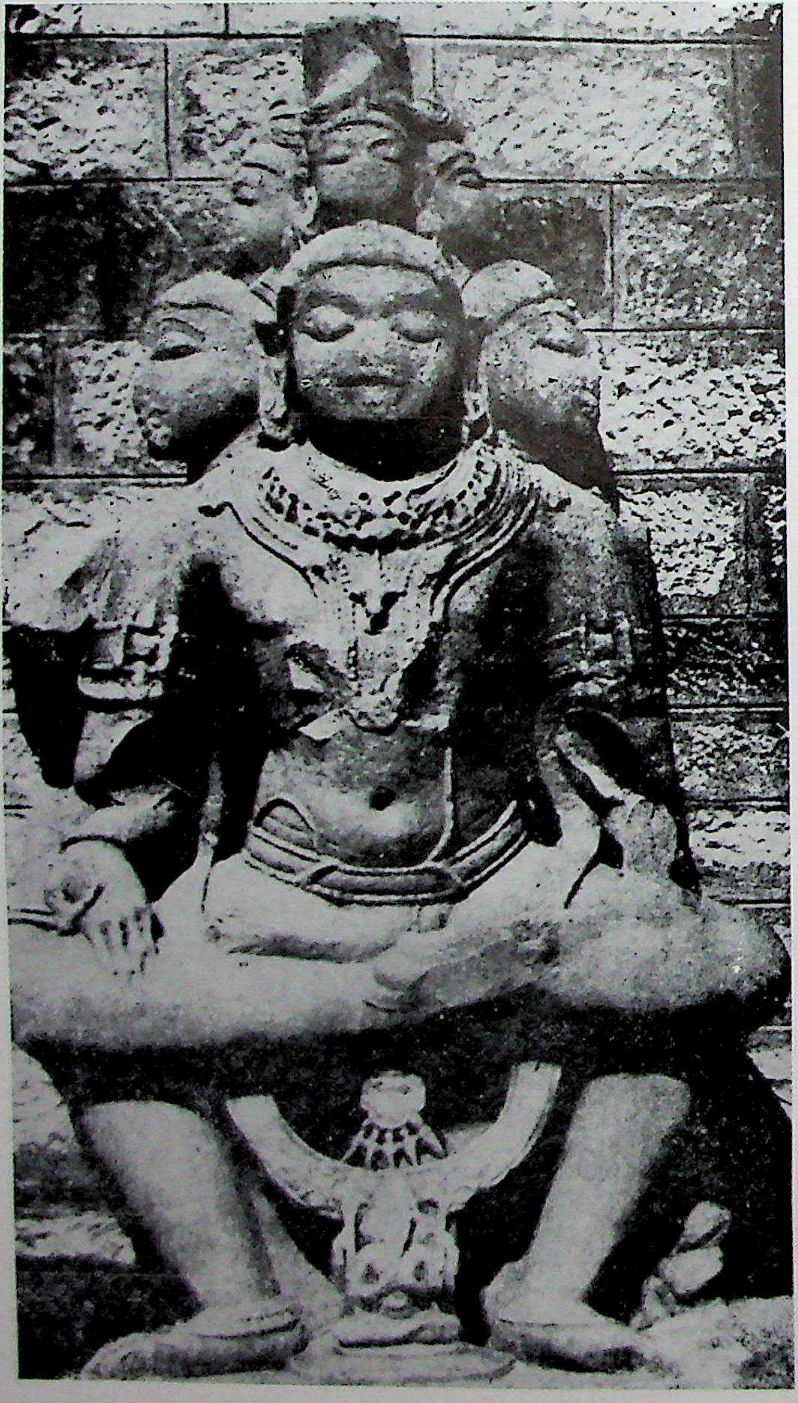
75. Hungund



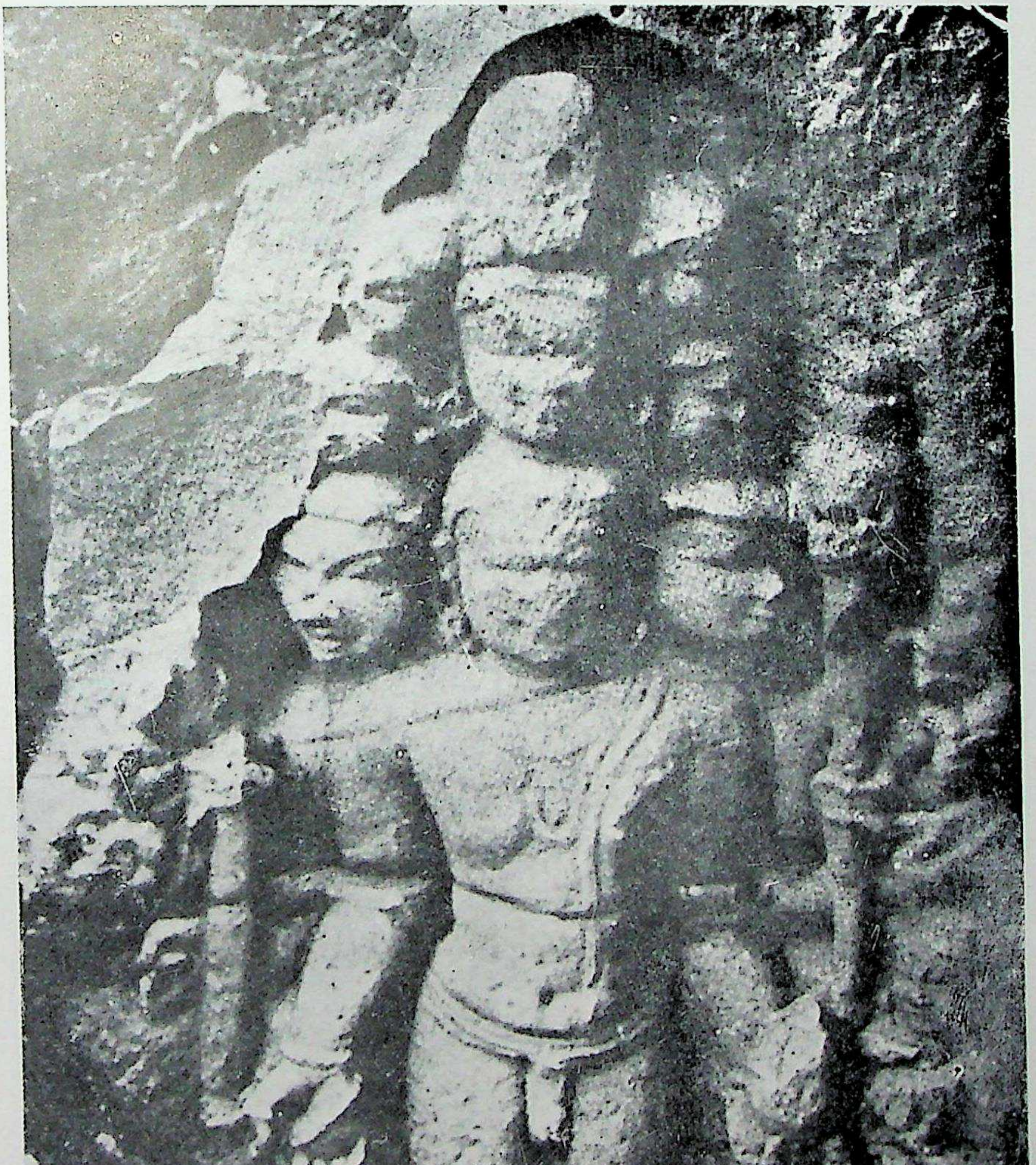
76. Hungund



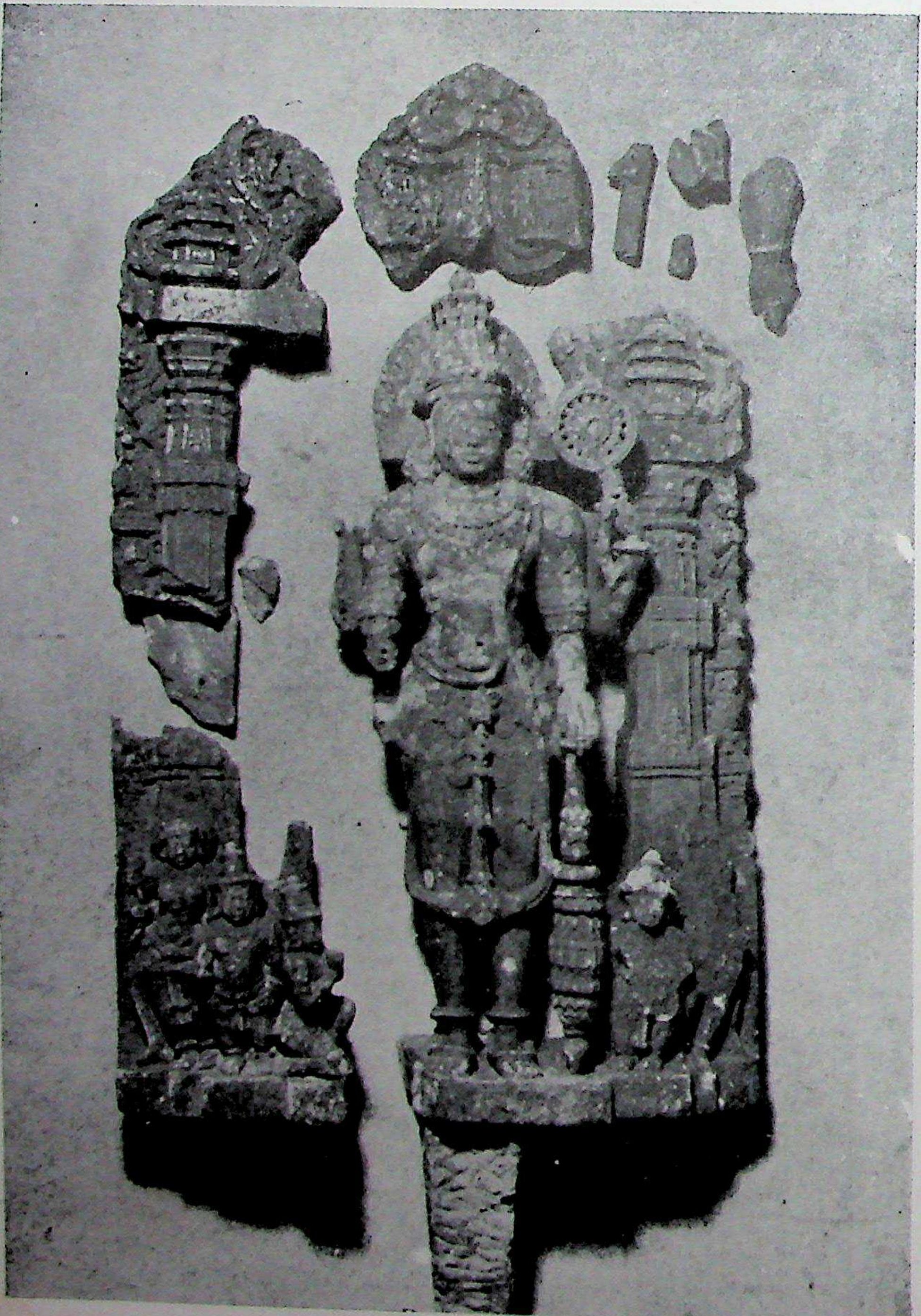
77. Peddavēgi—Mahāsadāśiva



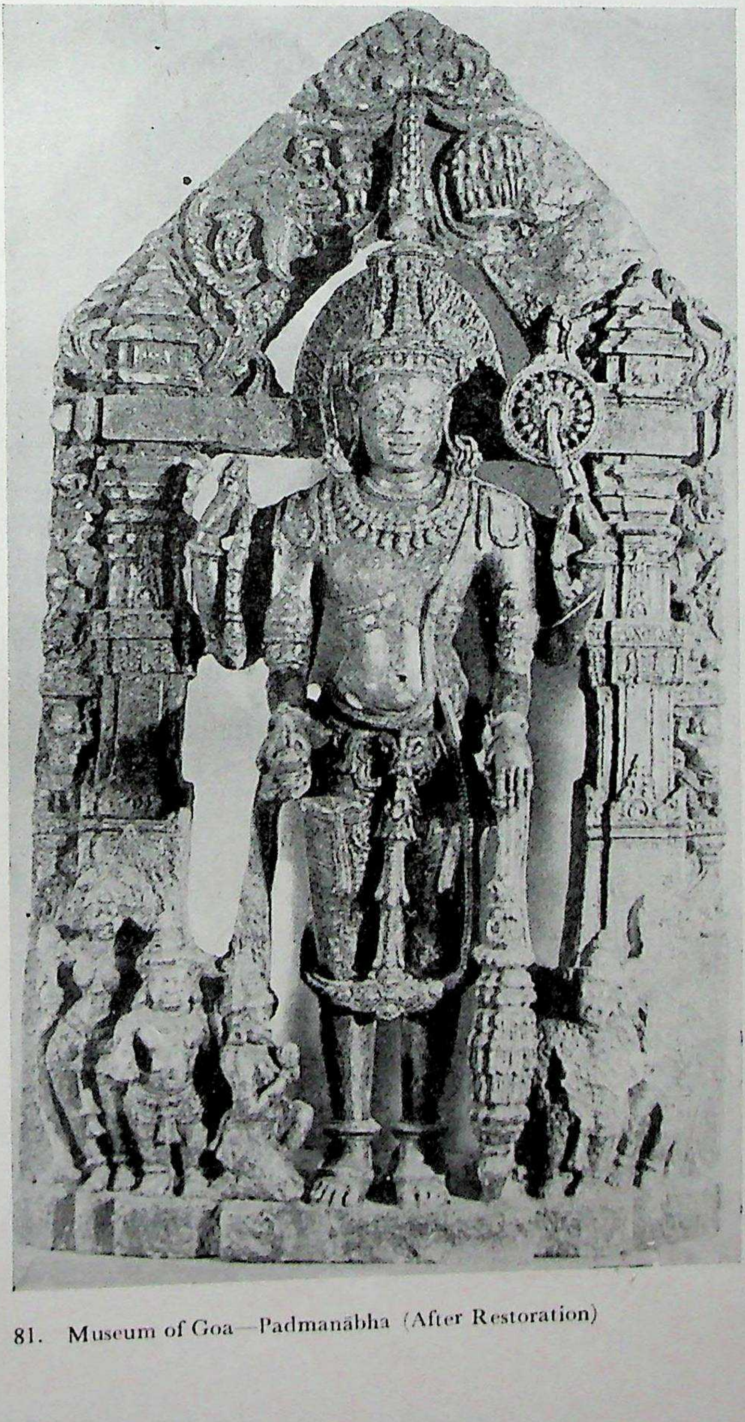
78. Khajuraho—Chandella, Chatushpāda Mahāsadāśiva



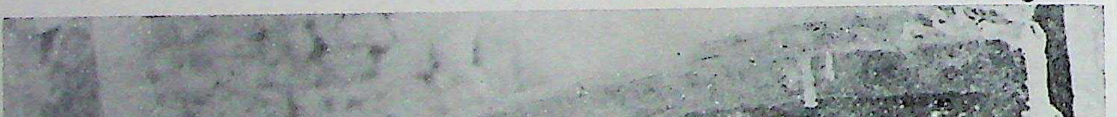
79. Kālañjar—Mahāsadāśiva



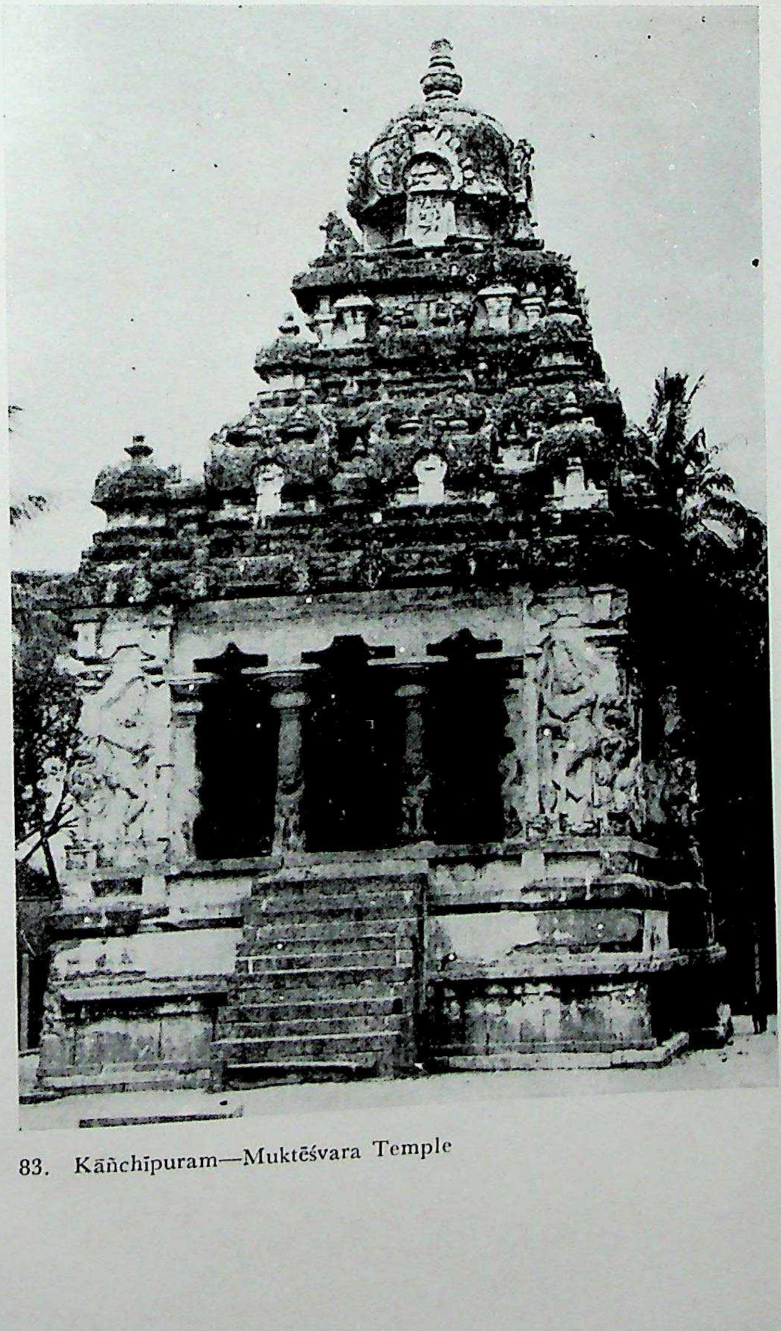
80. Museum of Goa—Padmanâbha (Before Restoration)



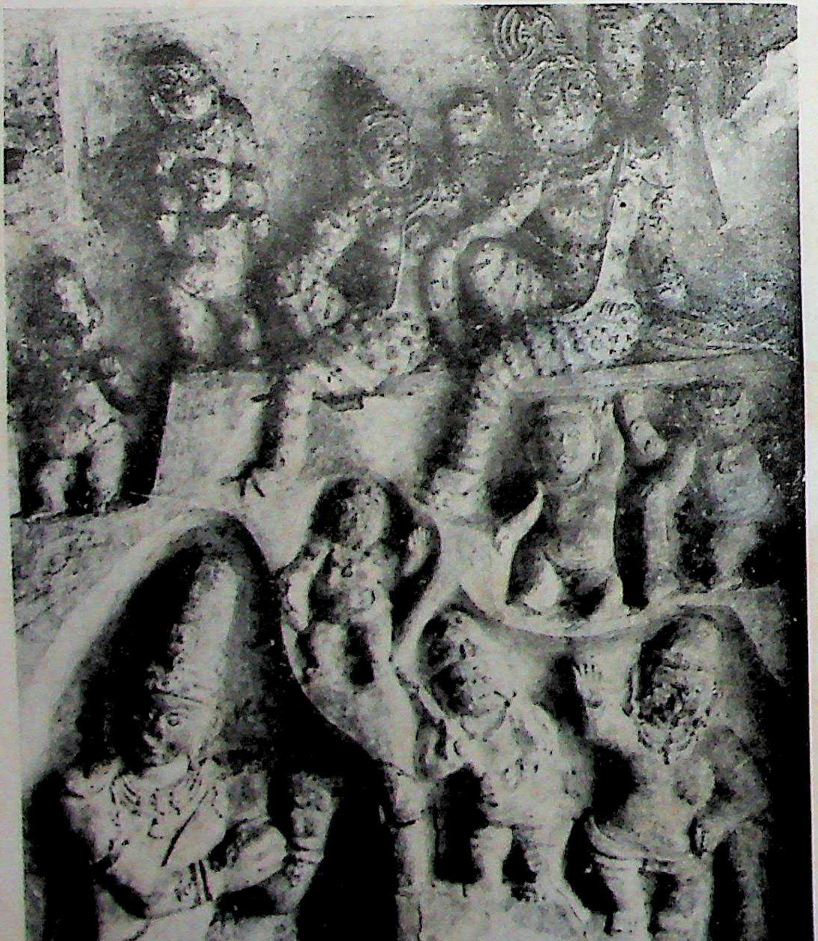
81. Museum of Goa—Padmanābha (After Restoration)



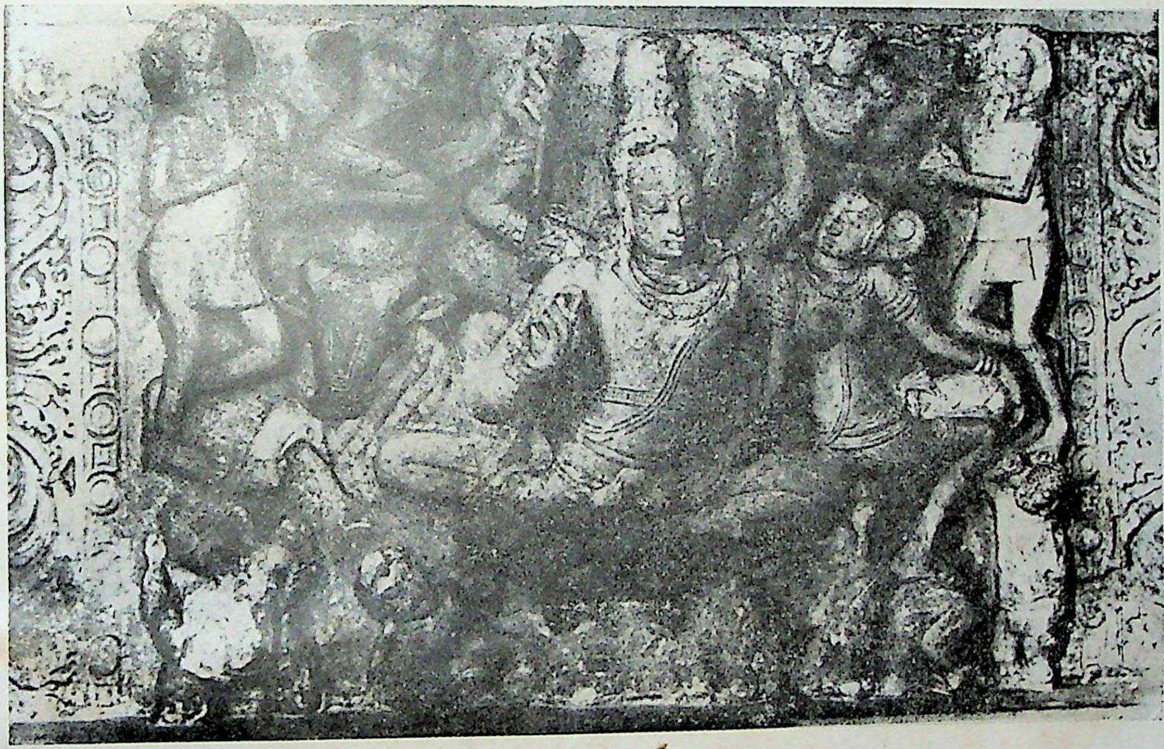
82. Mārkaṇḍa—Somāskandamūrti-Śiva



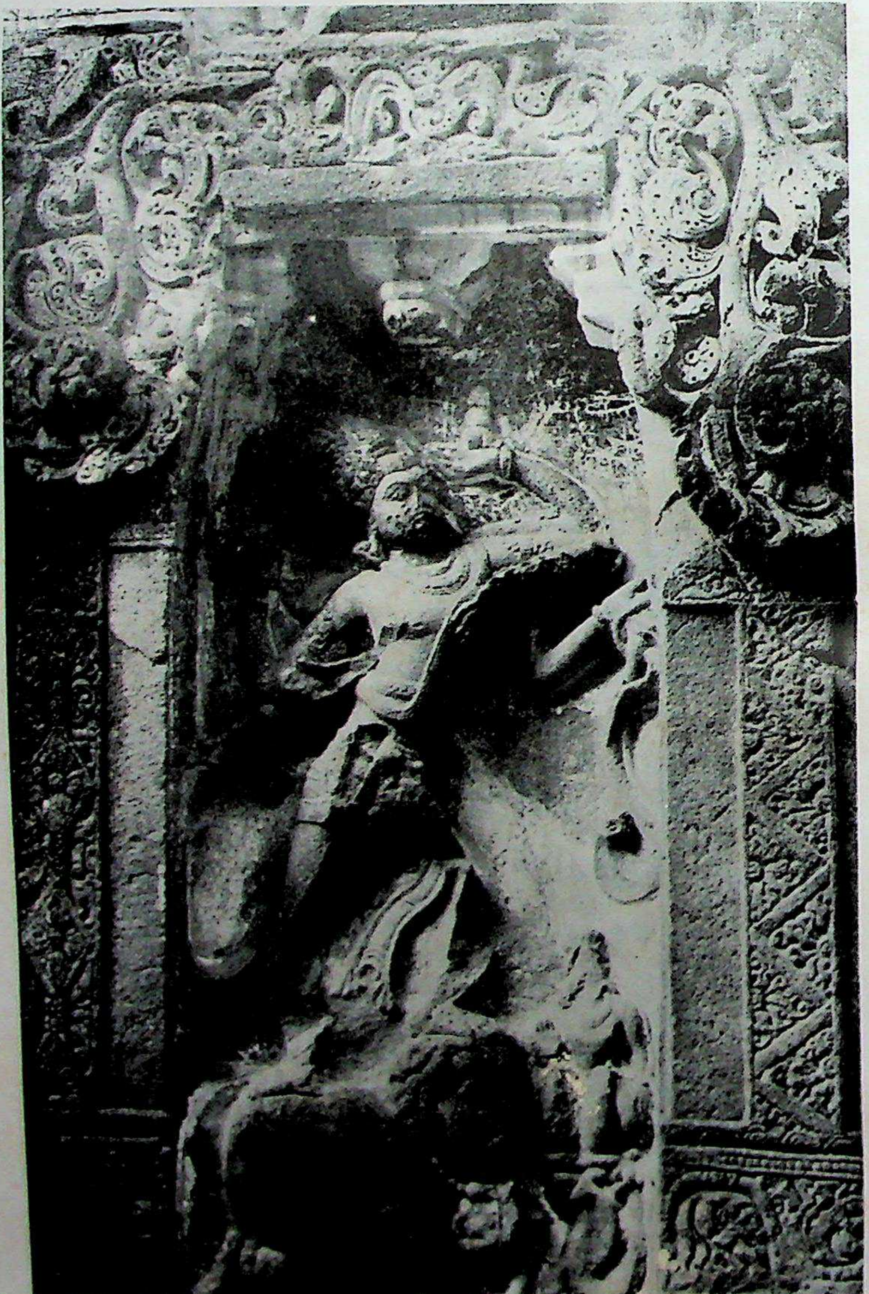
83. Kāñchīpuram—Muktēśvara Temple



84. Kāñchīpuram—Muktēśvara Temple,
Śiva as Mahāvratin



85. Aihole—Śiva carrying *Linga* on his Shoulder



86. Ellora—Dancing Śiva with *Linga* on his Palm

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